## **UNITED STATES MARINE CORPS**



#### MARINE CORPS BASE

QUANTICO, VIRGINIA 22134-5001

MCBO **P5100.1A**B 51
19 Feb 97

## MARINE CORPS BASE ORDER P5100.1A

From: Commanding General To: Distribution List

Subj: MARINE CORPS BASE, SAFETY AND OCCUPATIONAL HEALTH PROGRAM

(SHORT TITLE: MCB SAFETY PROGRAM)

Ref: (a) MCO P5102.1

(b) NAVSEAINST 8023.11

(c) MCO 5100.8 (d) MCO 5100.19 (e) MCO 5100.29 (f) 29 CFR 1960

Encl: (1) LOCATOR SHEET

1. <u>Purpose.</u> To establish policy and provide guidelines, principles, and procedures for the administration and conduct of the safety and occupational health program aboard MCB, Quantico. The Order will be implemented per the references.

2. <u>Cancellation</u>. MCBO **P5100.1**.

## 3. Background

- a. The Occupational Safety and Health Act (OSHACt) became law in 1970 but was applicable primarily to private industry. Executive Order 12196, Occupational Safety and Health Program for Federal Employees, was signed by the President on 26 February 1980 to guarantee equal safety and occupational health protection to Federal civilian and military personnel engaged in occupations similar to their private industry counterparts.
- b. Coupled with the OSHAct, executive orders, and higher headquarters safety and health directives, the CG MCB has published this Safety and Occupational Health Manual to ensure safe and healthful places and conditions of employment for all military and civilian appropriated and nonappropriated funded workers, working aboard MCB, Quantico. The Safety and Occupational Health Program (hereafter referred to as "the Safety Program") applies to all workers (military and civilian), dependents, students, tenants, contractors, and visitors aboard the Base.

## 4. Policy

- **a.** It is the policy of the CG MCB, to implement a proactive mishap prevention program that establishes force protection and conserves warfighting and support manpower, equipment, and material to the extent possible through the application of an effective and continuous safety and occupational health program.
- b. All levels of command shall establish and maintain an aggressive force protection (safety and occupational health) program to enhance training and the Marine Corps warfighting capability by preventing mishaps and reducing personnel and material losses aboard this Base.
- ${f c}$ . Force protection, including hazard awareness and risk management, shall be fundamental elements in all aspects of Base operations and training.
- 5. <u>Scope.</u> This Order applies to all military and civilian personnel. It extends to dependents and all civilian personnel while on MCB, Quantico. It applies to all Marine Corps facilities, equipment, and materials and is in effect on and off this Installation, as applicable. It also applies to tenant activities as reflected in the host/tenant agreements, Interservice Support Agreements, and to contractors whether or not specified in a service agreement.

## 6. Responsibilities

- a. <u>Commanding General, Marine Corps Base, Quantico</u>. Responsible for the conduct of the overall safety program by command and tenant activity personnel <u>onboard MCB</u>, Quantico per the references.
- b. <u>Director</u>, <u>Safety Division</u>. Develop and monitor this program for all activities in the command, with assistance to tenant activities per directives and interservice support agreements.
  - (1) Plan, organize, and manage the CG's safety program.
- (2) Keep the CG MCB informed of safety and occupational health program progress and/or egression.
- (3) Prepare, and keep up-to-date, safety rules and regulations as directed by the CG MCB, and higher authority.
- (4) Act in an advisory capacity on matters of safety and occupational health to organizations aboard the Base.
- (5) Maintain complete and accurate files on reports of mishaps and make a comprehensive analysis of each.

- (6) Correlate mishap prevention activities with Naval Medical Clinic, Quantico personnel in order to minimize occupational health illness.
- (7) Ensure the development and conduct of supervisor safety training for all supervisors.
- (8) Ensure the conduct of annual and periodic safety inspections of all areas in or on the Base to evaluate program management, facilities, operations, and to assist personnel in the overall implementation of the safety program.
- (9) Prepare an annual budget to include staff training, purchase of educational material, audiovisuals, safety equipment, test instruments, and supplies necessary for the conduct of business by the Safety Division.
- (10) Initiate action to stimulate and maintain the interest of command personnel in mishap prevention by the use of awards, films, posters, training, news releases, lectures, contents, special emphasis programs, magazines, and other promotional methods as allowed, based on actual funding.
- (11) Coordinate and consult with the Supply Officer specifying standards for safety devices and hazardous material labeling.
- c. Commanders/Division Directors and Activity Heads. The conduct and implementation of an effective safety and health program is a basic management responsibility. This commences with the CG MCB, and includes all levels of leadership as well as the individual Marine and civilian worker. Commanding officers and division directors are responsible to institutionalize and implement an aggressive Safety and Occupational Health program within their commands or activities. The following are minimum requirements outlined in references (a), (b), (c), (d), and (e). Other requirements and responsibilities are contained throughout this Order.
- (1) Appoint, in writing, **a** knowledgeable officer, NCO, (sergeant or above), or civilian worker to represent the CO/Director as the Unit Safety Representative (USR). Updates are required no later than 30 October each fiscal year. A copy of the USR appointment letter is to be sent to the CG MCB (B 51). **Minimum** appointment time is 18 months.
- (2) Budget for and procure all safety devices and government furnished personal protective equipment necessary for the type of work being accomplished.
- (3) Ensure mishaps involving personnel and/or government property are investigated and reported per reference (a). This

includes preparation and submission of mishap message report (MMR) to CMC (SD) ensuring the Base Safety Division and Naval Safety Center are information addressees.

- (4) Ensure mishap prevention and safety program instructions are current and maintained by supervisors for their organization.
- (5) Ensure that SOP's are written on **all** primary jobs performed within their command/activity as deemed necessary by the supervisor and Safety Division.
- (6) Ensure the Safety Division is notified of all mishaps involving personal injury or property damage (USMC/GOVT) within 24 hours. The Director, Safety Division must be immediately notified telephonically of all serious injuries and/or fatal mishaps.
- (7) Ensure that all personnel receive thorough and continuous supervisor conducted worker safety orientation and training that is designed to prevent mishaps and work safely per reference (f). Assistance is available from the Safety Division in this regard.
- (8) Consider supervisors' safety responsibilities when writing their Performance Appraisals.
- d. The Director, Facilities Division ensures that all construction, maintenance, and service contracts contracted by Public Works Branch or the Regional Contracting Office contain clauses requiring contractors comply with Occupational Safety and Health Administration, the Marine Corps, and Base safety precautions and regulations. Contract monitors will enforce mandatory safety requirements on all contractor operations to ensure MCB, Quantico personnel and property are not exposed to unsafe or unhealthful conditions.
- e. <u>Supervisors</u>. Supervisors are the key to **a** successful mishap prevention program. They, particularly first line supervisors, have direct daily contact with the work force and operations under their cognizant authority, and are in the best position to influence safe work practices and behavior. To ensure a proactive approach to mishap prevention, supervisors shall:
- (1) Provide personnel, under their direct supervision, worker safety training designed to identify the following:
- (a) Policies, procedures, and programs contained in this Order and in their activity/shop safety programs and SOP's that apply to their operations.
- (b) Hazards and safety precautions for all machines, tools, chemicals, equipment, and work processes/environments that they use or are subjected to in the performance of their duties.

- (c) The need for, and proper use of, safety equipment, clothing, and other protective equipment necessary to protect workers working in potentially hazardous/unhealthy environments.
  - (d) Mishap Notification Procedures.
- (2) Maintain records of training to keep activity and branch heads informed of training problems.
- (3) Initiate appropriate abatement and follow-up action until abatement has been completed for any unsafe or unhealthful condition or act involving their personnel, geographical area, or operation,
- (4) Conduct daily walk through inspections of their area(s) of responsibility to detect and eliminate any unsafe or unhealthful conditions.
- (5) Ensure workers are provided with required Personal Protective Equipment (PPE), and enforce the use of all required PPE by workers under their care.
- (6) Report immediately all "lost work day" mishaps to the USR and ensure a thorough and comprehensive mishap investigation.
- (7) Ensure DD Form 2272, Department of Defense Safety and Occupational Health Protection Program, is completed and posted in primary work centers. These forms are available at the Base self-service store.
- (8) Post a copy of the Commanding General's Safety Policy letter in each work center/section. Copies can be obtained by contacting the Base Safety Division, Lejeune Hall, Room 101.

## f. Unit Safety Representatives

- (1) Attend an initial USR training program conducted by the Base Safety Division within 30 days of being designated a USR.
- (2) Keep CO/Director apprised of safety issues affecting their organization.
- (3) Act as the supervisor's point of contact for safety matters.
- (4) Conduct building/workplace inspections on a weekly basis maintaining records of **all** safety/health discrepancies, corrective actions/abatement procedures.
- (5) Oversee the completeness of applicable safety instructions within individual organizations.
- (6) Maintain a turnover notebook of applicable instructions, guidelines, checklists, and information germane to  ${\bf a}$  particular USR position.

- (7) Work with supervisors to initiate corrective action, with guidance from the Safety Division if necessary, for identified hazards.
- (8) Initiate, advise, and oversee the submission of all required mishap reports per reference (a) **and** this Order.
- (9) Attend and participate in USR meetings scheduled by the Base Safety Division.
- g. <u>All Personnel</u>. All military and civilian personnel are responsible for knowing, understanding, observing, and adhering to all safety requirements applicable to their duty and work area. In addition, each individual is responsible for the following:
- (1) Reporting to work rested and physically and emotionally prepared for any task assigned.
- (2) Using normal caution, common sense, and foresight in work.
- (3) Reporting to their immediate supervisor any and all practices, conditions, equipment, or material which they consider unsafe.
- (4) Warning others that they believe to be endangered by known hazards, or of their failure to observe and comply with occupational safety and health requirements, and of possible developing hazards.
- (5) Reporting immediately to their supervisor any mishap or injury, or evidence of impaired health in the course of work, regardless of how minor.
- (6) Wearing/using protective clothing/equipment of the type required, approved, or supplied for the safe performance of their particular work assigned. The supervisor will ensure protective clothing/equipment availability.
- (7) Understanding that certain hairstyles and beards are hazardous around machinery and open flame, and that beards and some hairstyles interfere with vision or the use of respiratory protective devices. Such interference will cause the worker to be removed from hazardous work areas until corrected.
- (8) Wearing safety shoes, boots, or foot protection devices which could include conductive/nonconductive shoes while working in areas identified as foot hazards. The supervisor will have or get the proper safety shoes/boots.
- (9) Not wearing jewelry, rings, necklaces, loose scarves, ties, or loose clothing which might subject the wearer to additional hazards while working in areas so identified.

- 7. <u>Summary of Revision</u>. This revision contains a substantial number of changes and should be completely reviewed.
- 8. <u>Action.</u> The provisions contained in this Order are obligatory and will be implemented through the chain of command throughout military and civilian components of the Base and tenant activities.
- 9. <u>Recommendations.</u> Recommendations concerning the Base Safety and Occupational Health Order are invited. Such recommendations will be forwarded to the CG MCB (B 51) via the appropriate chain of command.

10. Certification. Reviewed and approved this date.

/Chief of Staff

DISTRIBUTION: P50

## LOCATOR SHEET

Subj:	MARI	NE	CORPS	BASE	SAFETY	AND	OCCUPATIO	NAL	_HEAL	TH.	
	PROG	RAI	<u>4</u>								
Location											
Locacion:		(Ir	dicate	loca	tion(s)	of	copy(ies)	of	this	Manual.)	

# RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Entering Changes

# CONTENTS

## CHAPTER

1	SAFETY MANAGEMENT
2	OCCUPATIONAL SAFETY
3	REPORTING UNSAFE AND UNHEALTHY WORKING CONDITIONS
4	HAZARD ABATEMENT PROGRAM
5	MILITARY TRAINING
6	GENERAL HOUSEKEEPING
7	RECREATION AND OFF DUTY SAFETY PROGRAM
8	HAZARD COMMUNICATION PROGRAM
9	CONFINED SPACE MANAGEMENT PROGRAM
10	CONTROL OF HAZARDOUS ENERGY SOURCES PROGRAM (LOCKOUT/TAGOUT PROGRAM)
11	LAWN MOWING/TRIMMING OPERATOR SAFETY
12	RAILROAD RIGHT-OF-WAY SAFETY
13	LASER SAFETY
14	INDUSTRIAL HYGIENE/OCCUPATIONAL HEALTH
15	AMMUNITION AND EXPLOSIVES SAFETY
16	TRAFFIC SAFETY
APPENDIX	
A	DEFINITIONS
В	CHEMICAL HYGIENE PLAN
С	EXPOSURE CONTROL PLAN
D	INDUSTRIAL HYGIENE SERVICE REQUEST

# CHAPTER 1

## SAFETY MANAGEMENT

	<u>PARAGRAPH</u>	PAGE
GENERAL,	1000	1-3
SAFETY MANAGEMENT AND STAFFING	1001	1-3
SAFETY COUNCILS AND COMMITTEES	1002	1-3
POSTING OF SAFETY PRECAUTIONS	1003	1-9
SAFETY INSPECTIONS	1004	1-10
MISHAP REPORTING	1005	1-11
FIGURES		
1-1 MCB FORM 1700/2 (EF), NOTICE OF HAZARD		1-13
1-2 EXAMPLE FORMAT OF MESSAGE MISHAP REPORT		1-14
1-3 MCB FORM 5100/1 (EF), SUPERVISOR'S MISHAP AND INJURY REPORT		1-18

## CHAPTER 1

## SAFETY MANAGEMENT

## 1000. GENERAL

- 1. The purpose of the safety program at MCB, Quantico is the preservation of resources while accomplishing the command/activity mission. Every Marine Corps member injured, while on or off duty, civilian worker, and every piece of equipment or vehicle damaged reduces Marine Corps effectiveness and degrades mission accomplishment.
- 2. Safety awareness is the responsibility of everyone aboard MCB, Quantico. Although overall safety management oversight falls under the Safety Division, implementation of safety programs is the responsibility of commanders, directors, supervisors and workers. Commander and director interest and involvement coupled with supervision are the kevs to preventing mishaps.
- 3. Knowledge, dedication, integrity and professionalism **are** the cornerstones to successful mission accomplishment. A positive proactive attitude towards safety, its purpose, method and logic, is the foundation on which these cornerstones are laid. Safety is above all else, the attitude that mishaps <u>can</u> be prevented while accomplishing the mission.
- 1001. <u>SAFETY MANAGEMENT AND STAFFING</u>. Per MCO 5100.29, the MCB Safety Division is established as a special staff function of the CG MCB, Quantico to provide the Base with a complete and fully coordinated staff service for overall management of the Base Safety Program.
- 1002. <u>SAFETY COUNCILS AND COMMITTEES</u>. As directed in MCO 5100.8, the following safety councils/committees are hereby established and will meet on a regular basis as required by this Order:
- 1. <u>Marine Corps Base Command Safety Council/Safe Driving Council.</u>
  The Safety Council Charter is an integral part of this Order. The Charter was developed by the Council members addressing responsibilities, objectives, and goals.
  - a. Mission. The primary mission of these Councils is to:
- (1) Recommend safety policy and provide guidance and oversight for the CG MCB.
- (2) Assist commanders, directors, and tenant activity heads in the implementation and execution of their organizational safety program.

- (3) Review mishap statistics and selective accident reports which show developing trends. Members forward to the CG MCB (B 51) plans and procedures to effectively reverse unfavorable trends and reduce or eliminate hazardous conditions which cause mishaps.
- (4) Recommend changes in policies or procedures to minimize unsafe acts or conditions.
- (5) Plan educational and promotional efforts designed to create and maintain interest in force protection and promote increased emphasis on mishap prevention.
- (6) Review the minutes of the Supervisors' Safety Committee meeting for necessary action by the Council.
- (7) Review actions taken to improve traffic safety issues addressed by the Safe Driving Council AD HOC Committee.
- b. Meetings will be held quarterly, or more frequently at the discretion of the Chairperson. The Safety Division, through the Chairperson, is responsible for scheduling and notification of Council meetings. Meeting notices will be sent to council members at least 20 working days in advance of each meeting. The Safety Division will provide a recorder and will distribute the minutes to council members following the approval and signature by the Chairperson.
- ${\tt c.}$  Membership of the Base Safety Council/Safe Driving Council will be composed of the following:
- (1) Commanding General or Chief of Staff, MCB (Permanent Chairperson).
  - (2) Director, Safety Division (Recorder).
  - (3) Director, Facilities Division.
  - (4) Director, Operations Division.
  - (5) Director, Communications Electronics Division.
  - (6) Director, Logistics Division.
  - (7) Director, Manpower Division,
  - (8) Director, Morale, Welfare and Recreation (MWR) Division.
  - (9) Head, Civilian Human Resources Office Quantico.
  - (10) Deputy Director, Training and Education Division.
  - (11) Vice President, Marine Corps University.

- (12) Commanding Officer, Weapons Training Battalion.
- (13) Commanding Officer, Headquarters and Service Battalion.
- (14) Commanding General, MCCDC Representative.
- (15) Commanding Officer, Marine Corps Air Facility (By agreement, represents CO, HMX-1).
  - (16) Commanding Officer, Security Battalion.
  - (17) Health Care Advisor, Naval Medical Clinic.
  - (18) Staff Judge Advocate.
  - (19) Motor Transport Officer.
  - (20) Public Affairs Officer.
  - (21) Base Fire Chief.
  - (22) Director, Comptroller Division.
  - (23) Director, Occupational Health.
  - (24) Command Chaplain.
- (25) President, American Federation of Government Employees (AFGE) Local 1786 or the Safety and Health Program Coordinator.
- (26) One member of the Quantico Education Association (QEA) representing QEA bargaining unit workers and one member of the nonappropriated fund bargaining unit representing bargaining unit workers of the MWR Division. Union presidents of the QEA, and the nonappropriated fund instrumentality (NAFI) Bargaining Unit will designate their representatives in writing to the Director, Safety Division (B 51) by 1 October each year.

## 2. Supervisors Safety Committee

- a. Mission. The primary objective of this committee is:
- (1) To act as a mid-level management action group to interface with Shop Safety Committees and the Command Safety Council. This body reports to the Command Safety Council on its activities and makes recommendations to issues that need a higher level policy decision.
- (2) To develop activity minutes for the record and for the Command Safety Council's review.
- (3) To comply with objectives contained in references to this Order.

- b. <u>Base Supervisor Safety Committee Membership</u>. Commanding officers and directors of commands/activities identified below will appoint their representatives at the mid-management level (captain/major or civilian equivalent) and provide those names in writing, to the Director, Safety Division. Appointees will be replaced as assignments dictate; however, members shall be appointed for a minimum of one year.
  - (1) Facilities Division.
  - (2) Security Battalion.
  - (3) Health Care Advisor.
  - (4) Headquarters and Service Battalion.
  - (5) Logistics Division.
  - (6) Marine Corps Air Facility.
  - (7) Morale, Welfare, and Recreation Division.
  - (8) Marine Corps University.
  - (9) Weapons Training Battalion.
  - (10) Training and Education Division.
- (11) AFGE, Local 1786 representative as appointed by the Local President.
- c. The committee will serve primarily as a problem solving body with recommending authority. Pursuant to its objectives of "considering mishap prevention problems" and "increasing interest in the safety program," it is expected that the council will endorse recommended actions that fall into one of the following categories: actions that can be implemented by committee members; and actions that cannot be implemented by committee members. A chairperson will be elected each year. The Chairperson will be elected by simple majority. A recorder will be appointed by the chairperson with minutes forwarded to the Safety Division following signature by the chairperson. It is expected that the committee will endorse and or recommend actions according to the following guidelines:
- (1) Actions that can be implemented by committee members are those recommendations that solely affect or involve the operations they supervise and need not proceed beyond this committee for approval or implementation.

- (2) Actions that cannot be implemented by committee members are those recommendations which affect work operations supervised by other management officials of the Base or its tenant activities.
- d. Meetings will be held quarterly, or more frequently, at the direction of the Chairperson. The Chairperson will be elected from the committee membership at the first quarterly meeting of each new fiscal year and will serve for one year. The Chairperson will ensure that copies of committee minutes are forwarded to the Base Safety Council Chairperson and the Shop Safety Committee that submitted action items.
- e. The Director, Safety Division, or his representative, will attend each meeting and serve as a consultant and technical advisor.
- f. To maintain interest and further encourage participation the following practices will be observed:
- (1) Notices of scheduled meetings will be distributed to committee members at least 20 days before each meeting. Committee meeting minutes will be distributed to the Chairman, MCB Command Safety Council, the Director, Safety Division and Supervisors Safety Committee members following review and signature by the committee chairperson.
- (2) Any supervisor of MCB, Quantico, and its tenant activities, may propose agenda items for consideration by this Committee.
- g. If the committee is to be successful in meeting its objectives, it must be kept apprised of the progress of the safety programs at the various MCB organizations. Accordingly, standing agenda items will be:
  - (1) The Safety Division will deliver a brief on:
- (a) MCB's overall safety program progress for the past quarter.
- (b) Significant events relating to the safety program during the past quarter.
- (c) Any significant upcoming safety and occupational health events of interest, i.e., scheduled inspections, training schedules, etc.
- (2) Each committee member will be expected to brief the committee on-safety related events, accomplishments, and/or mishaps within their organizations over the past quarter. Examples of such include, but are not limited to, safety problems and how they were resolved; what is being done if they have not been resolved; new safety procedures and/or training efforts; mishaps (or near mishaps); action taken to prevent similar mishaps; successful safety promotion efforts, etc.

(3) Old and new business will be covered as well **as** items from the floor before the meeting is adjourned.

## 3. <u>Shop/Unit Safety Committees</u>

- a. Branch heads will establish and appoint shop/unit safety committees for activities under their cognizance. Membership of these committees will consist of journeyman level (military and or civilian), selected on an annual basis by the supervisors/OIC's from each major shop/unit. Supervisors/OIC's having 30 or less personnel should appoint one representative. Supervisors/OIC's with more than 30 personnel should appoint two representatives (a primary and alternate). Committee chairpersons and recorders will be appointed by the appropriate Branch Head. Union representation is required to be maintained on shop/unit safety committees where there are bargaining unit members. Membership on these committees will include an equal number of bargaining unit employees named by the local union and the activity/command. Branch heads are responsible for ensuring safety issues surfacing are resolved within the organization, or, through the CO/director, elevated to the Supervisor Safety Committee.
  - b. Organizations requiring shop/unit safety committees:

Quantico Dependent School Systems Current Operations Branch Ouantico Band Section Range Control Section Explosive Ordnance Disposal Section Training and Audiovisual Support Center Ammunition Storage Point Branch Facilities Maintenance Branch Public Works Branch Support Branch Housing Branch Fire Protection/Prevention Branch Dental Care Advisor, Branch Dental Clinic Reserve Affairs Division Marine Corps Air Facility HMX-1Telephone Liaison Branch Electronics Support Branch Communications Branch Office Equipment Services Branch Materiel Branch Defense Printing Service Detachment Office Traffic Management Branch Food Service Branch Security Battalion Natural Resources and Environmental Affairs Branch Ground Sanitation Section Training Area Section MWR Division Recreation Branch - MWR

Communication Officers School Marine Corps University Training and Education Division Instructional Management School

- c. The purpose of these committees is to increase interest at the worker level, decrease the existence of hazards and elicit suggestions for corrective action, and to raise safety/health awareness and concerns to the attention of higher management when resolution at the shop/unit level is not practicable. Only issues that have already been addressed directly with the immediate supervisor, or at the shop/unit safety training meetings should be entertained at committee meetings. Supervisors/OIC's of shops/units not included in the above list are encouraged, at their own discretion, to establish shop/unit safety committees to function as outlined in this section.
- d. Meetings will be held at least monthly. Minutes will be recorded at each meeting, normally typed within 5 working days, reviewed by the chairperson, and forwarded to the appropriate director/CO. Copies of the minutes will be distributed to each member and shall be posted for one month in a conspicuous place accessible to all shop/unit members.
- 4. Shop/Unit Safety Training Meetings. Supervisors, OIC's, SNCOIC's, and NCOIC's will have weekly safety training meetings. These meetings need not exceed 10 minutes in length but should consist of meaningful safety/health material. Shops/units that are strictly office spaces with clerical duties only are exempt from the weekly requirement but should conduct monthly safety training sessions.
- a. These meetings should provide a means of disseminating mishap prevention material and information to all personnel, should be used as a platform for solving local safety problems, and should provide training in safety related areas.
- b. Safety problems which cannot be solved at this level will be referred to the shop/unit safety committee.

## 1003. POSTING OF SAFETY PRECAUTIONS

- 1. Posting is the display of any plate, placard, painted sign, written material, or instructions in a conspicuous place. Posted safety materials will not be removed, defaced, or covered.
- 2. Safety precautions will be posted by the supervisor in a conspicuous place on or near any equipment, component of equipment, or material which presents a hazard to the safety of personnel. For example, those safety precautions necessary for the safe handling,

storage, and security of dangerous materials such as flammables, explosives, acids, corrosives, etc., will be posted at or near the storage space designated for those materials.

## 1004. SAFETY INSPECTIONS

- 1. Annual safety inspections are conducted by Safety Division personnel per 29 CFR 1960, MCO 5100.8, MCO 5100.29, and this Order. Annual inspections will address command/activity safety program management concerns and unsafe conditions or acts of personnel. High hazard areas will be inspected more frequently based upon an assessment of the potential for injuries, occupational illnesses, or damage to Marine Corps/Navy property.
- 2. Inspections will be conducted in a manner to preclude unreasonable disruption of the workplace operations. These inspections will be conducted with prior written notice. Unannounced, or spot, inspections will be conducted when, in the judgment of the Safety Division, they will provide a more accurate assessment of actual operating conditions and practices, as based on worker concerns.
- 3. Imminent danger situations discovered during an inspection will be brought immediately to the attention of supervisory personnel. Affected work shall be stopped and personnel not required for abating the hazard will be removed from the affected area. Immediate or temporary abatement action will be initiated or the operation will be terminated. Imminent danger is defined as a hazard or unsafe act that, in all probability, will cause death or serious physical harm immediately, or within a short period of time as addressed in appendix A.
- 4. Written reports of workplace inspections will be provided to the CO/director of the command, activity, or operation inspected within  $\bf a$  reasonable time. Inspection reports will indicate when any follow up sampling and monitoring should be accomplished. Responses to inspection reports will be returned, signed by the CO/director, within 30 days of the date of the report. MCB Form 1700/2 (EF), Notice of Hazard Form (figure 1-1) will be issued for Risk Assessment Codes 1, 2, or 3. Individual notices must be issued to track and correct safety hazards. Quarterly status reports from the inspected command/ activity are required after the initial response is signed out by the CO/director.
- 5. A supervisor/OIC or Unit Safety Representative of the organization being inspected should accompany the inspector. Union representation will be in accordance with applicable Marine Corps Orders, Federal law, and appropriate negotiated agreement. Safety and Health inspectors are authorized to deny the right of accompaniment to any person whose participation interferes with a fair and orderly inspection.

## 1005. MISHAP REPORTING

- 1. Safety mishap investigations and reports of mishaps are essential to an efficient and successful safety program. They supply the information necessary to transform ineffective work or behavior into a planned safety program which permits the full use of proven techniques to effect control over hazardous conditions and practices and prevent recurrence of similar mishaps.
- a. Mishap investigations and reports will be submitted per MCO P5102.1. The Base Safety Division and the Naval Safety Center will be info addresses on all mishap message reports (MMR) required by MCO P5102.1. Figure 1-2 is an example of the MMR Format. MMR's shall be E-MAILED to the Safety Division for review and released to CMC (SD) within 30 days of the mishap date. The Safety Division is the releasing authority for MMR's aboard MCB, Quantico.
- b. As delineated in MCO P5102.1, the Base Safety Division will be notified immediately, by telephone, of any serious mishap, injury, death, or property damage in excess of \$2,000.

## 2. <u>Mishap Resorts to be Submitted to the Safety Division</u>

- a. Supervisor's Mishap and Injury Report, MCB Form 5100/1 (EF) (figure 1-3) will be prepared by the individual's supervisor for each mishap involving a duty connected or occupational injury, illness, poisoning, or disease which results in death, or which causes limitation and/or loss of duty, or separation from employment for any full day, or any full shift, or on any day subsequent to the day of the mishap (or onset of disease), for civilian workers (appropriated and nonappropriated funds) on duty, and military personnel military personnel, whether on or off duty, including students, reserve personnel on active duty for training. Included are those mishaps causing damage to Government owned or leased property or equipment (other than aircraft) where the estimated amount is \$2,000, or more even though not attendant with death or personal injury. These reports will be submitted through the appropriate director, CO, or OIC.
- b. The above report will be submitted to the Safety Division no later than 5 working days following the incident. A Safety Specialist will provide assistance as requested for mishap reportability criteria contained in MCO P5102.1.

## 3. Resort of Motor Vehicle Accident, Standard Form 91

- a. The driver of **a** government motor vehicle (GMV) will complete a Standard Form 91 report for any mishap involving a government motor vehicle.
- b. A copy of all completed Standard Forms 91 will be sent by the GMV operations supervisor to the Base Safety Division.

4. Provost Marshal Office (PMO) Daily Blotter, Government Operated Vehicle (GOV)/Privately Owned Vehicle (POV) Accident Reports, and Investigation Resorts. PMO Daily Blotters relating to fire, industrial/occupational, recreational, GOV, and POV accidents resulting in injury, death, or property damage, and PMO Formal Accident Investigation Reports shall be forwarded by the PMO Operations Officer to the Safety Division each working day.

# 5. Reports to be Submitted to the Head, Civilian Human Resources Office - Ouantico

- a. The Federal Employees' Compensation Act (FECA) prescribes the use of specific reports and forms whenever an appropriated fund civilian worker of the Federal Government is injured while on duty or suffers an occupational illness or disease. MCO 5100.8 and MCBO 12810.1 outline specific guidance and instructions in this regard and will be used in preparation of required reports.
- b. Workers, supervisors, and OIC's are responsible for adhering to the reporting and processing procedures of the FECA when civilian workers suffer any duty connected injury or illness. The Head, Civilian Human Resources Office Quantico, should be consulted for information and assistance in accomplishing responsibilities in this regard.

## 6. Reports Involving Nonappropriated Fund Civilian Workers

- a. Nonappropriated fund workers are covered by separate compensation insurance and should file compensation reports per instructions maintained by their employing organization.
- b. For Occupational Safety and Health Administration requirements and trend analysis reporting NAFI mishaps, supervisors will submit to the Base Safety Office an MCB Form 5100/1 (EF). Reportable mishaps will be investigated and reported as required in MCO P5102.1.

NOTICI	E OF HAZARD
OCATION	DATE POSTED
HAZARI	DOUS CONDITION
	RISK ASSESSMENT CODE
INTERUI C	ONTROUMEASURES
-	
PERMANENT	CORRECTIVE ACTION
·	
OR FURTHER INFORMATION CONTRACT	EXPECTED COMPLETION DATE

# EXAMPLE FORMAT OF A MESSAGE MISHAP REPORT (REF: MCO ~5102.1)

R 1000252 JAN 96

FM CG MCB QUANTICO VA//HOBN//S4

TO RUEACMC/CMC WASHINGTON DC//SD//

INFO RUCOPAW/COMNAVSAFECEN NORFOLK VA//10//40//50

RULSMCA/CG MCB QUANTICO VA//SAFE//

(INFO OTHERS IN CHAIN OF COMMAND AS NEEDED)

BT

UNCLAS FOUO//N05102//

MSGID/GENADMIN//

SUBJ/THIS IS A GENERAL USE MISHAP REPORT TO BE USED ONLY FOR SAFETY

PURPOSES PER MCO P5102.1, MCB QUANTICO MISHAP FILE NUMBER XXXX-96 (FILE

NUMBER WILL BE ISSUED BY SAFETY DIVISION, MCB)

REF/A/DOC/MCO P5102.1/930308//

- 1. ENDORSEMENT NOT REQUIRED. **SUMMARY:** (*BRIEF SUMMARY OF MISHAP*) LCPL OVERTURNED PRIVATE MOTOR **VEHICLE** (**PMV**) **WHILE** EXITING HIGHWAY, SUFFERING BACK AND NECK INJURIES.
- 2. MISHAP INFORMATION
- **A. PARENT COMMAND.** MARINE CORPS BASE, QUANTICO, VA., FACILITIES DIVISION, FISCAL BRANCH.

Figure 1-2. --Example Format of Message Mishap Report.

- B. DATE AND TIME OF MISHAP. 28 DEC 950200 (LOCAL TIME)
- C. GENERAL LOCATION. I-95, NORTH OF RICHMOND, VIRGINIA
- D. SPECIFIC LOCATION. EXIT RAMP AT DOSWELL, VIRGINIA
- E. GENERAL ACTMTY. RETURNING TO MCB, QUANTICO FROM LEAVE STATUS
- F. SPECIFIC ACTIVITY. EXITING I-95 TO REFUEL VEHICLE
- G. ENVIRONMENTAL CONDITIONS. RAINING, POOR VISIBILITY, SLIPPERY ROAD
- H. ADDITIONAL INFORMATION
- (1) QUALIFICATIONS. (SHOW TRAINING/Q UALIFICA TIONS OF PERSONNEL INVOLVED/INJURED.) SNM COMPLETED DRIVERS IMPROVEMENT COURSE IN 1994, MCB, QUANTICO)
- (2) PERSONAL PROTECTIVE EQUIPMENT: SEAT BELTS WORN (IDENTIFY ALL

  REQUIRED PERSONAL PROTECTIVE EQUIPMENTAND ADDRESS WHETHER OR NOT IT WAS

  USED)
- (3) MOTOR VEHICLE INFO: (FOR PMV OR GMV MISHAPS) 1993 MUSTANG, NY LICENSE #111 33 6666, EXPIRES 12/25/97
  - (4) NOT ALCOHOL OR DRUG RELATED
- 3. PERSONNEL DATA
- **A. FATALITIES.** N/A (IDENTIFY FATALITIES, IF APPLICABLE, REFLECTING INFORMATION AS LISTED FOR INJURIES IN NEXT PARAGRAPH)

Figure 1-2.--Example Format of Message Mishap Report--Continued.

- **B.** INJURIES: SMITH, JOHN, LCPL, **ADMIN** CLERK, 222 333 4444, 21, MALE, 0 15 1, DRIVER, OFF DUTY, STRAINED BACK AND NECK, CLASS C, 1 HOSPITALIZED DAY, 5 CONVALESCENT DAYS
- C. OTHER FATALITIES/INJURIES. N/A (AS APPLICABLE)
- **4. DOD PROPERTY DAMAGE.** N/A (AS APPLICABLE)
- **5. NON-DOD PROPERTY DAMAGE.** N/A (AS *APPLICABLE*)
- **6. POINT(S) OF CONTACT.** CARSON, MAJ, DSN 278-1111 (PRIMARY SAFETY INVESTIGATOR)
- 7. FINDINGS: (SHOULD ANSWER THE WHO, WHAT, WHEN, WHERE, AND HOW QUESTIONS OF MISHAP INVESTIGATIONS. INCLUDE A SEQUENCE OF EVENTS THAT LED TO THE MISHAP RESULTING IN INJURY AND/OR PROPERTY DAMAGE) SNM WAS RETURNING TO MCB, QUANTICO AFTER 10 DAYS OF PERSONAL LEAVE. HE WAS REQUIRED TO REPORT FOR WORK AT 0600 ON 28 DEC 1995. SNM LEFT NEW BERN, NORTH CAROLINA AT 2200 ON 27 DEC 1995 AFTER AN ALL DAY HUNTING TRIP. SNM HAD RISEN AT 0400 TO GO HUNTING. HE RETURNED FROM HUNTING AT 1830. WITHOUT ANY ADDITIONAL SLEEP SNM DEPARTED FOR QUANTICO AT 2200, AFTER EATING DINNER. SNM EXITED 1-95 AT THE DOSWELL EXIT RAMP, WHICH IS A CLOVER LEAF. SNM EXITED AT A SPEED TOO FAST TO SAFELY EXECUTE THE CLOVER LEAF. VEHICLE DEPARTED THE ROAD ON THE LEFT SIDE AND OVERTURNED. SNM WAS ABLE TO EXTRICATE HIMSELF FROM THE VEHICLE AND WALKED TO SERVICE STATION TO GET HELP.

Figure 1-2.--Example Format of Message Mishap Report--Continued.

## 8. CONCLUSIONS:

- A. (1) SNM EXITED I-95 DRIVING TOO FAST FOR ROAD CONDITIONS.
  - (2) SNM WAS FATIGUED
  - (3) VISIBILITY WAS POOR.
- B. MATERIAL FAILURE OR MALFUNCTION FACTORS: N/A
- C. FACILITIES FACTORS. SNM WAS UNAWARE OF SHARP TURN IN CLOVER LEAF AND FAILED TO ADJUST HIS SPEED TO ALLOW HIM TO SAFELY EXIT.
- 9. RECOMMENDATIONS: THAT FIRST LEVEL SUPERVISORS PROVIDE A
  PRE-DEPARTURE SAFETY BRIEFING TO ALL MARINES PREPARING TO DEPART ON
  LEAVE, PCS, AND LIBERTY, WHEN DEPARTING LOCAL AREA. AS A MINIMUM,
  BRIEFINGS SHOULD INCLUDE TRAVEL PLANS, OBTAINING ADEQUATE REST, SEAT
  BELT USE, AND ALCOHOL USE.

Figure 1-2, --Example Format of Message Mishap Report--Continued.

## SUPERVISOR'S MISHAP-AND INJURY REPORT

PHONE: (703) 784-2866 TO: SAFETY DIVISION (B 511 1. INJURED PERSON (Last Name, First, MI) 8. TRAINING/CERTIFICATION 2. AGE 3. SEX 4, PAY GRADE/ RANK 5. MOS/OCCUPATION/TRADE 7. ACTIVE DUTY/RESERVIST/OFFICER CANDIDATE 3. JOB ASSIGNMENT 9. YEARS OF EXPERIENCE 10. REPORTING ACTIVITY/UNIT 11, DUTY STATION 12 CHECK ONE 13. CHECK ONE (Or More, If Applicable) **FATAUTY** OCCUPATIONAL ILLNESS INJURY MILITARY CIVILIAN PROPERTY DAMAGE PERMANENT TOTAL DISABILITY PERMANENT PARTIAL DISABILITY 14. DATE OF INJURY (Day/Ma,/Yr.) LOST WORKDAY STARTED 18 HOUR OF DAY 15. DAY OF WEEK 20. DAYS SPITALIZED 19. WORK DAYS LOST 18. DATE RETURNED TO WORK 21. RESTRICTED DAYS/LIGHT DUTY 23. PLACE OF OCCURRENCE / 22. DUTY STATUS (At Time Of Mishap) (Occupational Mishaps Only) OFF BASE 25. DESCRIPTION OF MISHAP (Describe circumstances and ifficient detail that reviewing authorities may gain a complete understanding of cause and effect relationships. 26. TYPE OF MISHAP (Des 27. CAUSE OF MISHAP 28. TYPE OF INJURY/BODY PART (E) Arm, Bruised Leg/Laceration/Leg) 29. SOURCE OF INJURY 30. HAZARDOUS CONDITION (Unsafe condition of objects or environment) 31. WEATHER CONDITION 32. UNSAFE PERSONAL FACTOR (Why Mishap was Committed) 33, UNSAFE ACT (Act Directly Contributing to Mishap) 34. PERSONAL PROTECTIVE EQUIPMENT REQUIRED 36. DOD PROPERTY, EQUIPMENT DAMAGED 35. PERSONAL PROTECTIVE EQUIPEMENT UTILIZED 38. TOTAL COST PROPERTY DAMAGED 37. NON-DOD PROPERTY. EQUIPMENT DAMAGED SUPERVISOR'S SIGN BELOW 41. DATE 39. SIGNATURE (Supervisor) 40 TITLE. GRADE PHONE NUMBER COMMANDING OFFICER/SAFETY OFFICERS SIGN BELOW 44 DATE 42. SIGNATURE (Commanding Officer/Safety Officer) 43. TITLE, GRADE, PHONE NUMBER

# MCB SAFETY PROGRAM SUPERVISOR'S MISHAP AND INJURY REPORT (Continued) 45. WITNESS (Name, Address. Telephone Number) **46. CORRECTIVE ACTION TAKEN** 47 CORRECTIVE ACTION NOT ACCOMPLISHED/REASON 48. ADDITIONAL COMIN 49. DESCRIPTION OF MISHAP (CONTINUED1

MCB FORM 5 1 00/1 RN. APRIL 1996 (EF) (BACK)

# CHAPTER 2

## OCCUPATIONAL SAFETY

	<u>PARAGRAPH</u>	PAGE
PURPOSE	2000	2-3
WINTER WEATHER	2001	2-3
PERSONAL PROTECTIVE EQUIPMENT	2002	2-3
INDUSTRIAL POWER EQUIPMENT . ,	2003	2-9
CONTROL OF LITHIUM AND LEAD ACID		
BATTERIES	2004	2-9
EYEWASH/SHOWERS	2005	2-10
NEW CONSTRUCTION	2006	2-11
SERVICE CONTRACTS	2007	2-11
CONSTRUCTION SAFETY	2008	2-11

## CHAPTER 2

#### OCCUPATIONAL SAFETY

2000. <u>PURPOSE</u>. To prescribe policy and guidance for on-the-job safety.

## 2001. WINTER WEATHER

- 1. Supervisors must ensure that workers required to work outdoors are adequately clothed to prevent hypothermia or frostbite. Supervisors should encourage **all** workers to wear proper clothing, including footwear, during hazardous winter conditions.
- 2. Commanders, directors, supervisors, and building coordinators must ensure walkways are free of ice and snow to allow safe egress for all persons. Outdoor maintenance areas will be cleared of ice and snow to allow access to these areas. Sidewalks and parking lots will be cleared of ice and snow as soon as possible.

## 2002. PERSONAL PROTECTIVE EQUIPMENT (PPE)

- 1. PPE is furnished by the command, division, or activity for the expressed purpose of preventing/reducing injuries or occupational illness to personnel working in hazardous areas or occupations. The areas of such hazards, including occupations involving personal hazards, are determined by careful study of mishap records, local conditions, and guidelines established in current directives. The responsibility for designating a hazardous area, or occupation, rests jointly with the area supervisor, Safety Division, and the industrial hygienist. PPE guidelines for MCB, Quantico are available on request from the Base Safety Division.
- 2. Government Furnished Personal Protective Equipment. Personal protective equipment, not normally owned by workers in hazardous occupations, will be furnished by the Government without cost to the individual per 29 CFR 1910, 1926, and 1960. Examples of this type of equipment are respirators, eye protection, welders' helmets, rubber aprons, protective hard hats, safety toe shoes, and gloves. Branch Heads, with the concurrence of the MCB Safety Division or Navy Medical Clinic and review of Chief, Regional Contracting Office, may furnish other items of protective clothing or equipment, if in their opinion, the equipment is necessary to prevent mishap, injury, or occupational illness and disease, and that the user will benefit,

- 3. Approved Safety Equipment Standards and Specifications. Only safety equipment which meets the following requirements will be used:
  - a. Federal specifications used for Navy purchase.
  - b. Military specifications.
  - ${f c}$ . American National Standards Institute (ANSI) specifications.
- 4. It is the responsibility of each supervisor to ensure personnel are instructed in, and comply with, applicable safety precautions and use of PPE during the performance of their assigned tasks. It is the responsibility of all workers, military and civilian, to comply with related safety standards applicable to their work assignments.
- 5. Contracts for construction, maintenance, and service will contain a clause requiring the contractor to observe all applicable Federal, State, and Marine Corps safety regulations with regards to PPE. Visitors exposed to a known hazardous area will be furnished appropriate protective equipment by the area supervisor/site superintendent.
- 6. All personnel will report for work suitably clothed. Suitable clothing is defined as ordinary industrial work clothing and specialized work clothing. The former is a responsibility of the individual and the latter is a managerial responsibility. Industrial work clothes are designed to protect the worker against the minor injuries which are peculiar to a respective trade and/or shop assignment. Loose sleeves and garments that are loose around the waist are hazardous. Ordinary work clothing will be in good repair, fit well, and have protective qualities consistent with the hazard of the respective trade.
- 7. For the purpose of this Manual, ordinary industrial work clothing for the trades include long sleeved shirts, long trousers, and sturdy work/safety shoes. Personnel failing to observe precautions for personal safety, posted rules, signs, written or oral safety instructions, or use of protective clothing or equipment are subject to disciplinary action per current directives.
- 8. Personnel failing to observe precautions for personal safety, posted rules, signs, written or oral safety instructions, or use of protective clothing or equipment and supervisors that do not enforce the use of PPE may be subject to disciplinary action.

## 9. Procurement and Funding of Personal Protective Equipment

a. PPE supplied by the command or activity will be procured through approved supply channels and will meet all specifications as required by DoD, DON, and Marine Corps orders and directives.

- b. Nonappropriated fund activity heads and tenant activity heads are required to provide protective equipment from their own funds unless otherwise provided in a host-tenant agreement.
- 10. <u>Protective Footwear</u>. Safety shoes and toe guards are used to prevent injuries from falling objects striking the feet with an impact of 75 pounds or less.
- a. All personnel currently assigned duties in foot hazard areas will be furnished safety shoes/boots at Government expense. The command will not reimburse a worker for safety shoes purchased by the worker unless prior approval is granted by the commander or director. The Morale, Welfare and Recreation Division reimburses workers for shoes purchased by workers subject to cost limitation.
- b. Personnel assigned to a designated foot hazardous area will be provided safety shoes/boots as soon as practicable. Toe guards may be issued in cases where foot protection is necessary on an infrequent, temporary basis for brief periods, for visitors or workers.
- c. The following procedures apply to the issue of safety shoes/boots aboard Base.
- (1) The requesting organization will prepare a NAVMC Form 10700 (EF), Self Service Center Shopping List (less NSN) for the individual requiring safety shoes and send the individual to the Retail Clothing Outlet (RCO) with DSSC credit card,
- (2) RCO personnel will complete the NAVMC Form 10700 (EF) and issue the shoes to the individual. The RCO will give a copy of the completed NAVMC Form 10700 (EF) to the individual receiving the shoes.
- (3) In those instances where the RCO does not have the appropriate size on hand, the following procedures will apply:
- (a) If the required size is a direct support stock control (DSSC) stocked size, the RCO will order the shoes for the requesting activity. The RCO will notify the requesting activity when the shoes arrive.
- (b) If the required shoe size is a non-DSSC stocked item, the requesting activity will prepare a DD Form 1149 (9-PT), Requisition and Invoice/Shipping Document and submit a requisition to the Integrated Material Manager via Customer Service.
- d. Safety shoes/boots will become the personal property of the worker and not subject to a pro rated charge upon resignation, termination, or retirement.
- e. Replacement of safety shoes/boots will be at Government expense.

- f. Types of Protective Footwear. Personnel may select the style and type of shoe/boot best suited for their occupation or operation. The style and type must be available through the approved supply system.
- (1) High top or low quarter shoes. For example, high voltage workers and other outdoor workers would wear high top shoes/boots and warehouse workers would wear low quarter shoes.
- (2) Standard safety toe shoes are worn for work requiring handling of heavy materials.
- (3) Conductive (nonsparking) shoes are worn by personnel working in ordnance activities or other places where accumulation of static electricity on the body creates hazards due to possibilities of spark discharges igniting explosives, gases, or flammable mixtures.
- (4) Electrician's shoes are for the protection of electrical workers, welders, and others who may be exposed to electrical hazards when an electrical current passes from a contact point, via the shoes, to the ground.
- (5) Shoes meeting specifications of part **Z41** of the ANSI standards for safety are identified by a bordered stamp. This stamp may be located on the inside quarter, the shank of the outer sole, the shank of the inner sole, or on the tongue. If the shoes do not contain this stamp, they do not meet ANSI specifications. This is an example:

# ANSI 241.1 1967/75 M I/75 C/75

- (6) Special needs safety footwear, such as orthopedic shoes, will be resolved by the commander/division director and the worker.
- (7) Uniformed military personnel will be issued safety shoes per Marine Corps uniform standards.

## 11. Protective Headgear

- a. "Hard hats" are designed to be worn by workers in areas or occupations which involve the possibility of injury from flying, falling, or swinging objects, and from bumping the head against objects.
- b. All hard hats will meet the specifications listed in subparagraph 2002.3, above. <u>WEARING OF METAL SAFETY HATS IS STRICTLY</u> PROHIBITED!
- 12. <u>Sisht Conservation Program</u>. The Safety Division will coordinate an Eye Hazard Determination Committee consisting of appointees as required by MCO 5100.8E, to meet at least semiannually. Protective

eyewear will be worn in all eye hazard areas where there is a possibility of eye injury from dust, abrasives, splashing chemicals, acids, bright flashes, or surges of light, i.e., welding flash. Areas designated as eye hazards will be posted with appropriate warning signs per 29 CFR Parts 1910 and 1926. Permanent, plumbed, emergency eyewash facilities meeting the requirements of part 358.1 of ANSI Standards will be provided in all areas where workers may be exposed to irritating or damaging materials. The following are some of the common types of protective eyewear:

- a. <u>Plan0 Safety Spectacles</u>. These conventional-type spectacles, with or without side shields, and with clear hardened noncorrective lenses, are the general purpose type. They will be worn when operating lathes, sharpeners, planers, drill presses, power saws, grinders, buffers, polishers, mowers, etc. They do not provide adequate protection in operations such as welding, burning, chipping, riveting, or working with lasers.
- b. <u>Safety Spectacle Goggles, Type A.</u> These goggles, with side shields and hardened filtered lenses, are for the protection of welders and their helpers and those working in the vicinity of welding operations. They protect against glare, flash burns, and flying particles.
- c. Eyecup Goggles. These cup-type goggles with side shields and hardened clear lenses, sometimes called "chippers' goggles," are for use in occupations where large and heavy particles or flying objects with considerable velocity could injure the eye. These goggles are worn during riveting, chipping, heavy grinding, caulking, and pile driving operations.
- d. <u>Face Shields</u>. These are made of clear or tinted plastic, either 6 or 8 inches in width, designed to shield the entire face and are for use in areas where view of the work area is desirable and flying particles are not the high impact type. They are used when lightweight material and lathe grinding operations are conducted.
- e. <u>Cover-Type Gogales</u>. These goggles, with hardened lenses, are designed to wear over prescription or other glasses, similar to protection as provided in **eyecup** goggles.
- f. <u>Specialty Eyewear</u>. There are other work situations which require special types of eye protection, i.e., laser eyewear. Supervisors will provide specialty eyewear as required.
- g. Corrective (Prescription) Safety Spectacle. These glasses are used when a worker, who already wears corrective lenses, works in an eye hazard occupation or area. Special spectacle mounting frames are available for purchase by the organization for workers who are required to wear a self-contained breathing apparatus.

- (1) Military personnel will submit requests through their approved source of supply with prior approval from the organizational safety officer.
- (2) The following apply to Civil Service personnel desiring corrective safety glasses:
- (a) The employee completes MCB Form 5100/3 (EF), Safety Eyewear Request for approval and signature by the immediate supervisor.
- (b) Supervisor will determine the need and forward approved MCB Form 5100/3 (EF) to MCB, Safety Division for approval.
- (c) Safety Division will pass name and SSN to the Occupational Health Nurse for appointment scheduling. The worker will be notified by the nurse of the appointment date and time.
- (d) Report with approved request to Occupational Health Nurse at NMCL for vision screening.
- (e) After screening, go directly to Optometry Department for refraction if required.
- (f) Immediately following the Optometry appointment, the worker returns all paper work to the Safety Division where the glasses are ordered.
- (g) The Safety Division will notify the worker when eyewear is received from the contractor.
- (3) Civil Service personnel requesting replacement prescription safety eyewear due to damage shall submit MCB Form 5100/3 (EF) and surrender the damaged eyewear.
- (4) Nonappropriated fund workers and tenant activity workers will submit through their normal source of supply with prior approval from their organizational safety officer.
- 13. Other Protective Equipment or Clothing. Other protective equipment or clothing worn by personnel working in hazardous areas or occupations is listed below. PPE addressed in this Order are intended as a guide and may be supplemented by additional requiremens/occupations as required by a supervisor/OIC and/or the Safety Division.
- a. <u>Gloves.</u> Provide protection for hands and fingers when working around sharp/rough objects, electrical hazards, toxic substances, caustic materials, acids, biohazards, or raw sewage.
- b. <u>Aprons.</u> Provide protection from sparks, abrasives, chemicals, chips, or impacts. They are available in fire resistant fabric, leather, and natural or synthetic rubber.

- c. <u>Electrician's Rubber Gloves, Hard Hats, Protective Sleeves, Protective Hoods, Protective Line Hose, and Protective Blankets.</u>
  These items are furnished and used when working on live electrical circuits of 30 volts or more. Electricians' rubber protective equipment will be tested for electrical resistance per the National Electric Code and 29 CFR 1910 and 1926.
- d. <u>Refueling/Defueling Operations Impervious Gloves, Rubber</u>
  <u>Gloves, Hard Hats, Eve Protection, and Safety Boots.</u> These items are furnished and used when off loading or dispensing petroleum products.

## 2003. <u>INDUSTRIAL POWER EOUIPMENT</u>

## 1. General

- a. All industrial power equipment presents a potentially dangerous situation. The principle cause of mishaps involving power equipment is carelessness and/or complacency.
- b. Equipment that does not work properly will be tagged "out of service" and not used until repairs are made.
- $c\,.$  Use appropriate tools and equipment designed for a specific job. Makeshift tools will not be used.
- d. No power machinery or equipment that requires safeguards will be operated without the safeguard in place and in proper working order.
- e. All industrial power equipment will be utilized as required in applicable Occupational Safety and Health Administration standards. Appropriate training and licensing will be enforced. No one will intentionally disable or remove a guard, interlock or other safety device, or otherwise alter equipment, without proper authorization. Defeating a safeguard is a disciplinary offense and should be addressed by administrative action.
- 2. <u>Procurement of New Power Machinery or Eauisment.</u> Purchasing request for new power machinery or equipment will be routed through the Safety Division (B 51) for review and approval prior to submission to Purchasing and Contracting. The review will ensure required safeguards are specified in the purchasing request per 29 CFR, Parts 1910 and 1926.

## 2004. CONTROL OF LITHIUM AND LEAD ACID BATTERIES

1. <u>Lithium Sulfur Dioxide Batteries</u>. During the past decade battery manufacturers have developed electrochemical cells using lithium metal anodes coupled with either thionyl chloride, sulphur dioxide, carbon monofluoride, or other cathode materials. The different electro-chemistries and hardware designs used in the various cells

result in different performance and safety characteristics. Lithium cells have a high internal resistance which may limit use to low rate applications. Potential hazards may exist due to misuse of cells, the use of cells of poor design and quality, venting of toxic gases, explosions, and fires. These hazards have a potential to damage equipment and injure personnel.

a. Caution must be exercised when handling lithium batteries. Due to potential hazards and environmental concerns, lithium batteries will be used only when essential to mission accomplishment.

## b. <u>Branch Heads</u>

- (1) Procure and use lithium batteries only for approved purposes.
  - (2) Ensure lithium batteries are stored as follows:
- (a) Lithium batteries will be stored in their original shipping containers in a cool, ventilated shelter.
- (b) The storage area will be isolated from other hazardous and combustible materials and used only for the storage of unused lithium batteries.
- (c) The quantity of batteries stored in an area will be kept to the minimum consistent with requirements.
- (3) In the event of an accident or battery malfunction, the Fire Chief, Fire Protection/Prevention Branch; Security Battalion; the Head, Natural Resources Environment Affairs Branch, Facilities Division; and the Director, Safety Division will be immediately notified.
- $c\,.$  The Director, Facilities Division, will assume overall responsibility for the proper disposal of used batteries.
- 2. <u>Lead and Other Batteries</u>. Lead and other batteries will be stored and used in compliance with 29 CFR Part 1910 and ANSI Standard C18.1. Batteries will be charged and maintained in compliance with 29 CFR, Part 1910 and applicable ANSI Standards.

## 2005. EYEWASH/SHOWERS

- 1. Permanent, plumbed, emergency eyewash/shower facilities meeting the requirements of ANSI Standard 2358.1 will be provided in all areas where workers may be exposed to irritating or damaging materials.
- 2. Plumbed units will be flushed weekly for at least 3 minutes. A record will be kept indicating the date and initials of the person flushing the unit.

- 3. Self-contained units (portable) will be drained and flushed weekly using potable water. The unit will be refilled with potable water. A record will be kept indicating the date and initials of the person flushing the unit.
- 4. Emergency eyewash bottles and self-contained units are acceptable only in field locations where plumbed facilities are not available.
- 5. All emergency showers and eyewash stations will be in accordance with ANSI Standard 2358.1.
- 6. Portable eyewash fountains will not be permitted in areas where a chemical splash hazard exists and where there is a continuous source of potable water available.
- 7. Portable eyewash fountains may be allowed in remote areas when no continuous flow of fresh water is available, when the installation of a fresh water system is not economically feasible, and when the hazard of chemical splash is minimal.
- 8. All emergency showers, eyewash stations, bottles, and self-contained units will display inspection information located on the equipment or a nearby location. The dates and inspector's signature will be kept in a current status. Monthly inspections will include checking records to ensure flushing is conducted weekly. This inspection will be conducted by the organization/department safety officer.
- 2006. <u>NEW CONSTRUCTION</u>. Blueprints for all new construction and renovation projects will be reviewed by the Safety Division, the Industrial Hygienist, and the Fire Chief prior to solicitation of bids. No alterations or self-help projects will be made without prior approval of the Facilities Maintenance Officer, Public Works Officer, Safety Division, Industrial Hygienist, and the Fire Chief.
- 2007. <u>SERVICE CONTRACTS</u>. As appropriate, the Chief, Regional Contracting Office, and the OIC, Public Works will ensure that service contracts or contracts greater than \$2500 which fall under the Service Contract Act of 1965 are reviewed by the MCB, Safety Division prior to award.
- 2008. <u>CONSTRUCTION SAFETY</u>. Oversight authority for all construction projects aboard MCB, Quantico rest with the Public Works Contract Project Manager. The Project Manager will enforce all safety and occupational health rules and regulations. The Project Manager shall be contacted whenever unsafe or unhealthful conditions or acts are observed.

# CHAPTER 3

# REPORTING UNSAFE AND UNHEALTHY WORKING CONDITIONS

	<u>PARAGRAPH</u>	PAGE
PURPOSE . , , , ,	3000	3-3
BACKGROUND	3001	3-3
INFORMATION , , ,	3002	3-3
RESPONSIBILITIES	3003	3-5
FIGURE		
3-1 WORKER REPORT OF UNSAFE/UNHEALTHFUL WORKING CONDITIONS AT MARINE CORPS BASE		3-7

#### CHAPTER 3

## REPORTING UNSAFE OR UNHEALTHY WORKING CONDITIONS

- 3000. <u>PURPOSE</u>. To publish instructions, guidelines, and appeal procedures for processing personnel reports of unsafe or unhealthy working conditions and to encourage worker participation in identification and prompt reporting of unsafe and unhealthy working conditions.
- 3001. <u>BACKGROUND.</u> Public Law 91-596, Occupational Safety and Health Act (OSHAct), and Executive Order 12196, OSH Programs for Federal Employees, and MCO 5100.8 establish policy guidelines and implementation instructions for the submission, evaluation, and appeal procedures for reporting and documenting unsafe/unhealthy working conditions by DoD and Marine Corps personnel.

## 3002. INFORMATION

## 1. Reporting

- a. Any worker, or representative of such worker, who observes an unsafe or unhealthful working practice or condition, or a violation of a safety or health standard, should either orally advise the workplace supervisor of the condition or make written notification of the condition or practice. Copies of written notifications will be sent to the installation safety and health officials and should state in reasonable detail the reasons for the report.
- b. In lieu of orally reporting a deficiency to their supervisors, workers desiring anonymity may file a written report with the supervisor's name and refer the matter to the Base Safety Division. All military and civilian workers are encouraged to resolve unsafe conditions or practices with their immediate supervisor/chain of command before taking further actions.
- C. Upon receipt of a report, the designated safety and health official will verify the reported condition and will notify the workplace supervisor who shall initiate appropriate corrective action. Inspections and investigations, as appropriate, shall then be conducted by the Base Safety Division to determine if a hazard or unsafe practice exists.
- d. Within 5 working days after notification, the workplace supervisor shall advise the Base Safety Division, in writing, via the cognizant department head (or equivalent) of what corrective action has been taken on all written complaints/concerns.

- e. The originator of the report shall be notified in writing within 10 working days of actions taken regarding the reported condition. This notification shall be signed by the MCB CG or Chief of Staff. If the 10 workday suspense cannot be met for any reason, an interim reply, signed by the Director, Safety Division shall be made to the originator of the report.
- f. If the safety officer determines that the reported condition is not unsafe or unhealthful, the originator of the report shall be advised within 10 working days by letter. This notification shall be signed by the CG MCB or Chief of Staff, and will contain the rationale for the determination.
- g. When a worker reasonably believes they are exposed to a safety or health hazard that presents an imminent danger (a condition or practice posing a danger that could reasonably be expected to cause death or severe physical harm immediately or before the imminence of such danger can be eliminated through normal procedures), the worker will cease the activity and notify their supervisor. The supervisor will evaluate the situation, consult the Base Safety Division if necessary, and make a decision as to whether work may proceed. If the worker is not satisfied that the imminent danger is sufficiently eliminated, they will notify the supervisor. The supervisor will immediately notify the Base Safety Division, and assign the worker to other duties, if appropriate. Thereafter, if the Director, Safety Division determines that imminent danger does not exist or has been corrected, the worker will return to work.

## 2. Appeals

- a. If the originator of a report is dissatisfied with the determination made by the CG MCB that person shall be encouraged to confer with the head of the safety office to discuss the matter further and attempt a resolution at the local level. If dissatisfaction still exists, the originator is authorized per NAVSEAINST 8023.11 to submit an appeal following the procedures set forth below.
- b. A second-level appeal may be submitted if the originator is not satisfied with the action taken or disposition resulting from the first-level appeal. In these **cases**, the originator shall submit the report to CMC (SD). The originator shall also provide a copy of the second appeal to the CG MCB (B 51), and to the supervisor who reviewed the first-level appeal. The worker's second-level appeal shall include appropriate information on actions taken by the reviewing authority on the first-level appeal and the reasons why the originator is not satisfied with those actions.
- c. Third and fourth-level appeals may be submitted if the originator of the report is not satisfied with the response provided by the CMC (SD). Third-level appeals shall be addressed to the Secretary of the Navy  $(ASN\ (MRA\&L))$ , Navy Department, Washington, DC

20301; fourth-level appeals to the DOD designated Safety and Occupational Health Official, ASD (MRA&L), the Pentagon, Washington, DC 20301. Copies of these appeals shall be provided by the worker to CMC (SD) and to the CG MCB. The appeal shall describe, in detail, the Marine Corps disposition of the report (i.e., results of the second-level appeal) and the originator's objections to the disposition.

- d. As a last resort, if not satisfied with the final DoD disposition, the originator may contact, in writing, the Office of Federal Agency Safety Programs, U.S. Department of Labor, Washington, DC 20210. The appeal must describe, in detail, the entire processing of the report and must set forth objections thereto.
- e. The sequence of appeals for military personnel is via the chain of command. The final appeal process stops at the Office of the Secretary of Defense (ASD (MRS&L)).
- f. If at any time during the appeal process the originator does not receive a reply within 20 working days, the originator may submit the appeal to the next higher reviewing authority without waiting for a reply to the original notification. If the 20-workday suspense cannot be met for any reason, an interim reply shall be made to the originator of the report.
- ${f g.}$  Any appeal which bypasses these established procedures will be returned to the originator.
- 3. <u>Retention of Records</u>. The Base Safety Division is designated **as** the office of record for appeals filed per NAVSEAINST 8023.11 and this Order. Copies of reports and records of action will be retained for 5 years following the end of the fiscal year in which they occur.
- 4. <u>Safety Committee</u>. To minimize the need for filing written reports/appeals, civilian workers are encouraged to utilize the oral forum of the shop safety committee to solve safety problems of a local nature. Failing resolution at this level, the problem may be elevated to the Supervisor's Safety Council and ultimately, to the MCB Safety Council.

## 3003. <u>RESPONSIBILITIES.</u> Supervisors will:

- 1. Adhere to the contents of this Chapter.
- 2. Immediately date and time stamp the report to establish the date of receipt and expedite investigation and transmittal of responses to the Base Safety Division or the CMC (SD).
- 3. Make workers aware of this procedure.

- 4. Ensure that their actions in response to this Chapter do not interfere with established grievance procedures.
- 5. Refrain from interfering with this hazard reporting process and from discriminating against workers who use the process.
- 6. At no time will a supervisor threaten or coerce a worker in any way from reporting unsafe and unhealthy working conditions to the Base Safety Division. Supervisors found conducting this practice will face disciplinary action up to and including dismissal from Federal Service.

	DATE
From:	
To: (Cognizant Authority)	
Subj: WORKER REPORT OF UNSAFE/UNHEALTHY WORKING CONDITE MARINE CORPS BASE, QUANTICO	IONS AT
1. The undersigned (check one) Worker, Representative of workers believes that a violation of a occupational safety and health standard exists which is workers.	an
2. Specify the particular building or worksite where the violation is located:	he alleged
a. Building number:	
b. Number of personnel exposed:	
c. Responsible supervisor's/OIC's/name and telephon	e number:
d. Has this hazard been reported to the responsible OIC as required in paragraph 130002.1a of MCBO P5100.1A?  yes	
3. Briefly describe the hazard (if additional space is continue on a separate sheet of paper):	
4. Please indicate your desire: My name may My name may not be revealed.	be revealed
a. Worker's signature b. Worker's printed name c. Worker's work location d. Worker's work telephone e. Date of report	
5. If you are a representative of workers, please state the organization:	the name of
<u>Siffnature</u>	
copy to: Workplace Supervisor/OIC Safety Division (B 51)	

Figure 3-1.--Worker Report of Unsafe/Unhealthful Working Conditions at Marine Corps Base.

# CHAPTER 4

# HAZARD ABATEMENT PROGRAM

	<u>PARAGRAPH</u>	PAGE
DISCUSSION	4000	4-3
DEFICIENCY PROCESSING AND TRACKING	4001	4-3
INTERIM CONTROLS	4002	4-4
PRIORITIZATION OF HAZARD ABATEMENT PROJECTS	4003	4-4
COST REPORTING	4004	4-4

#### CHAPTER 4

#### HAZARD ABATEMENT PROGRAM

- 4000. <u>DISCUSSION</u>. Significant costs accrue every year due to injuries, illnesses, and property damage resulting from workplace hazards. Therefore, it is essential that a program be developed and maintained to eliminate or control all identified hazards in a systematic manner. The Base Hazard Abatement Program is established per MCO 5100.8 and this Order.
- 4001. <u>DEFICIENCY PROCESSING AND TRACKING</u>. Inspections of all workplaces are conducted by the Base Safety Division, Naval Medical Clinic (NMCL), and the Fire Department in order to identify facilities, equipment, and operations that are hazardous, or do not comply with acceptable safety standards. Regardless of the hazard identification method, the identified hazards will be processed as follows:
- 1. <u>Risk Assessment</u>. Each identified/validated hazard that cannot be corrected immediately shall be assigned a Risk Assessment Code (RAC) by the Safety Division, Industrial Hygiene, or Fire Inspector. The RAC represents the degree of risk associated with the hazard and combines the elements of hazard severity and mishap probability. The RAC is derived per MCO 5100.8.
- 2. Notice of Hazard MCB Form 1700/2 (EF). Workplace hazards (deficiencies) with a RAC of 1, 2, or 3, which cannot be corrected immediately, shall be entered on MCB Form 1700/2 (EF) by a MCB Safety Specialist, Industrial Hygienist, or Fire Inspector. A copy of MCB Form 1700/2 (EF) shall be provided to the supervisor of the operation where the condition exists. MCB Form 1700/2 (EF) shall be posted by the supervisor until the hazard has been corrected. The posted MCB Form 1700/2 (EF) shall be updated, as necessary, to accurately reflect the status of the abatement action and required interim controls. The supervisor shall take prompt action to correct, or initiate action to correct, the deficiency and return the MCB Form 1700/2 (EF) to the Base Safety Division, NMCL, or Fire Department as appropriate. Interim protective measures shall be implemented pending permanent abatement noted on the completion statement. MCB Form 1700/2 (EF) shall also indicate the status of the deficiency, including whether the deficiency has been corrected, and specific abatement action taken when the hazard has been eliminated.
- 3. Abatement Plans. Unsafe/unhealthful conditions (Hazards) assigned RAC's 1, 2, and 3 that require more than 30 days for correction shall be recorded in a formal installation hazard abatement plan. This plan shall include the following standard data for each hazard (or logical grouping of similar deficiencies):
  - a. Dates of hazard identification.

- b. Location of the hazard(s).
- ${\tt C.}$  Description of the hazard(s) including reference to applicable standards.
- d. RAC (with hazard severity, probability of single occurrence, and annual personnel exposure cited separately), or calculated RAC.
  - e. Interim control measures in effect.
- $\ensuremath{\text{f.}}$  Description of the abatement action, including estimated cost and completion data.
  - q. Abatement priority.
- h. Close-out statement, indicating: completed abatement action and actual cost, with date of completed action; process discontinued or worksite vacated (for archive record on file).

The installation abatement plan shall be maintained in the MCB Safety Division and will be available for review by recognized worker organizations, where applicable. The Base Fire Chief and the Director, Occupational Health and Preventive Medicine, NMCL will forward a listing of all their open RAC's 1, 2, and 3, containing the above information, to the Safety Division monthly. These RAC's will be included in the Base Hazard Abatement Plan by a Safety Specialist.

- 4002. INTERIM CONTROLS. Immediate abatement of deficiencies may not always be possible under working conditions and some temporary deviation from safety standards may be required. Appropriate interim controls shall be established as soon as the deficiency is noted. Such controls shall be documented on the MCB Form 1700/2 (EF).
- 4003. PRIORITIZATION OF HAZARD ABATEMENT PROJECTS. The backlog of unsafe conditions will usually exceed the funds available for safety and occupational health projects. It is necessary to have a consistent method for prioritizing projects. Work requests and projects shall be prioritized based on the RAC codes and forwarded to the Director, Safety Division, by the Director, Facilities Division, by 31 August annually.
- 4004. <u>COST REPORTING</u>. All funds spent for correcting safety and occupational health deficiencies shall be reported to the Director, Safety Division as identified in the previous paragraph. The cost data will be included in the Annual Report submitted to CMC (SD).

## CHAPTER 5

#### MILITARY TRAINING

## 5000. MILITARY TRAINING SAFETY

- 1. Military training safety procedures in this Manual are general in nature. These instructions should be amplified in organizational safety orders/SOP's to fit specific training needs. All such orders/SOP's shall be coordinated through the Base Safety Division before publication.
- 2. All personnel will be accounted for during training exercises. Plans will **be** developed in each organization to ensure immediate search, rescue, and assistance is available when needed.

## 5001. WATER SAFETY

# 1. General

- a. Training will not be conducted in boats or other watercraft when the temperature is below 40 degrees Fahrenheit. Exceptions are that personnel wear "wet suits" or the training be authorized by the CG MCB.
- b. Night training involving watercraft is prohibited unless authorized by the CG MCB.

# 2. Trainina with Boats or Other Watercraft

- a. Personnel embarked on training missions in watercraft will be qualified swimmers, as determined by operational standards.
- b. Personnel will wear a UL or other nationally recognized approved lifesaving vest or other personal floatation device (PFD).
  - c. Boat capacities will not be exceeded.
- d. A rescue boat will be near the training craft when operating in open waters.
- e. The rescue boat will be motorized and large enough to accommodate all members of the training craft.
- f. The rescue boat will have at least one first class swimmer and one corpsman with a resuscitator, first aid kit, and necessary rescue equipment on board.
  - q. Boat training will not be conducted during inclement weather.

h. Capsize drills will be conducted for all personnel. Capsize drills will be conducted close to shore. Adequate rescue personnel will be present during drills.

# 3. **Swimming** Activities

- a. Swimming will be conducted under the supervision of a certified lifeguard. The lifeguard will be designated for each swimming activity and assigned no other task.
- b. Swimming will be conducted in MCB swimming pools. Swimming is prohibited in all other areas on or adjacent to MCB, Quantico except during capsize drills prior to boating exercises.
- c. Graps in excess of 30 personnel require a minimum of 2 lifequards.
  - d. The "buddy" system will be used when swimming.
- 5002. <u>PUGIL STICK TRAINING</u>. **Pugil** stick training will be conducted only if personnel wear protective equipment (football helmet with mask, gloves, and athletic support cup) and the pugil sticks are padded and wrapped.

# 5003. OBSTACLE, CONFIDENCE, AND REACTION COURSES

- 1. Courses will meet or exceed all current  $\ensuremath{\mathsf{DoD}}$ ,  $\ensuremath{\mathsf{DoN}}$ , and  $\ensuremath{\mathsf{Marine}}$  Corps standards.
- 2. Where possible, nonslip surfaces will be used to reduce potential slipping hazards.
- 3. Ropes shall be inspected by supervisors or course instructors at least weekly for fraying or other signs of excessive wear. To prevent excessive wear, ropes will be attached to cross members by means of eye hooks using thimbles in the bend of the rope.
- 4. Pits will be a minimum of 6 inches deep and filled with sand or saw dust.
- 5. A corpsman will be present during training.
- 5004. MARCHES AND HIKES. Military units engaged in marches or hikes for training along roadways shall remain in a single file along both sides of the roadway and remain a minimum of 3 feet off of the traveled roadway. Road guards will wear a reflective vest at all times and will use flashlights at dusk, dawn, and during hours of darkness.

- 5005. <u>FIELD TRAINING DURING HOT/COLD WEATHER</u>. Field training during periods of hot or cold weather will be conducted per the guidelines in this Manual.
- 5006. <u>ENDURANCE TRAINING</u>. When military personnel are engaged in endurance training (cross country running, orienteering, field conditioning, marches, hikes, interval training, etc.) liaison should be made with the Health Care Advisor, Naval Medical Clinic to ensure that immediate medical aid is available. Personnel will be reminded of traffic hazards on roads.
- 5007. MILITARY UNIQUE TRAINING. Training safety orders or SOP's specific to military-unique training and equipment to include, but not limited to, small arms, weapons, munitions, ordnance, small unit/tactical training and the like shall be written by the conducting unit on an "as-needed basis." Because of the varied and specific nature of each type of unit this may apply to, it is incumbent upon the commanders of each unit to create specific orders for their operations and coordinate with the Safety Division if further assistance is needed.

# CHAPTER 6

# GENERAL HOUSEKEEPING

	PARAGRAPH	PAGE
PURPOSE	6000	6-3
SAFE HOUSEKEEPING PRACTICES	6001	6-3
SOLVENTS AND OTHER FLAMMABLES	6002	6-4
SANITATION	6003	6-4
COLOR CODES FOR HAZARDOUS MARKINGS	6004	6-4

## CHAPTER 6

#### GENERAL HOUSEKEEPING

- 6000. <u>PURPOSE</u>. This Chapter establishes the minimum housekeeping requirements to ensure a safe, healthy, and hazard-free working environment per MCO 5100.8, 29 CFR, Parts 1910 and 1926, and the American National Standards Institute Standards. The term "housekeeping" is used to signify a neat and orderly environment free of unsafe conditions. A good housekeeping work area must be continuous and given proper effort and forethought. Grease, oil, coffee, or water on floors is a frequent slip hazard and does not reflect an orderly working area. An orderly arrangement is conducive to a mishap free environment and is representative of sound supervision and efficient workmanship.
- 6001. <u>SAFE HOUSEKEEPING PRACTICES</u>. To obtain safe housekeeping practices the following conditions will be adhered to.
- 1. Provide adequate storage space for material and equipment.
- 2. Cabinets and/or holders for tools and portable equipment will be designated and utilized.
- 3. Appropriate containers for flammable/hazard materials will be provided and utilized.
- 4. A clean place for workers to change and wash as needed is provided as required.
- 5. Continuous guidance and direction on good housekeeping of both military and civilian personnel is provided by supervisors.
- 6. Daily or immediate disposal of hazardous waste, unused materials, and refuse is conducted per MCBO's and unit SOP's.
- 7. Aisles and passageways are clearly defined, properly marked, kept clear, and in good repair, with no obstructions which could create a hazard. Compliance with the National Fire Protection Association Life Safety Codes (NFPA-101) and 29 CFR 1910 is required.
- 8. Tools are maintained in good condition and are properly stored when not in use.
- 9. Hazardous materials are stored per existing instructions and this Order.
- 10. Overhead storage areas are load tested and have proper load limits posted. These limits are not to be exceeded.

- 11. Overhead storage areas with access stairways and elevated open areas, will be equipped with all required handrails, intermediate rails, and toe boards.
- 12. All illumination fixtures are operational, correctly guarded, and cleaned regularly.
- 13. Oil, grease, coffee, water, or other spills on floors or walking surfaces will be wiped up or cleaned with approved materials <a href="irnmediately">irnmediately</a> to prevent slips and falls.
- 14. Nonbuffing floor wax will never be applied over buffable floor wax (or the reverse). Such application reduces the coefficient of friction increasing the possibility of slips and falls. At no other time will any other type of wax, such as car wax, be used on floors. Manufacturers' instructions will always be followed. Wet floor warning signs will be used when maintenance and cleaning is being performed.
- 6002. <u>SOLVENTS AND OTHER FLAMMABLES</u>. Hazard/flammable material standards developed under the 29 CFR 1910 prohibit the accumulation of these materials in areas other than designated storage areas. Solvents and other flammable materials (liquid or solid) in work areas will not exceed the amount needed for 1 day or one work shift. All unused materials will be returned to approved storage areas prior to the end of the shift or workday. This is to include gasoline and fuel mixtures used for grounds maintenance.
- 6003. <u>SANITATION</u>. Sanitation is the continuing act of effecting and maintaining a healthful work environment. All personnel will be responsible for maintaining sanitary and healthy conditions in working, eating, drinking, sleeping, and recreation areas by removing food containers, napkins, lunch bags, cans, bottles, paper cups, and food waste to the receptacles provided for such waste.
- 6004. <u>COLOR CODES FOR HAZARDOUS MARKINGS</u>. Color is an effective way to alert personnel to hazards and to direct attention to maintaining a safe working environment. Prior to painting, organizations will consult 29 CFR 1910 for color coding requirements.

# CHAPTER 7 RECREATION AND OFF-DUTY SAFETY PROGRAM

	<u>PARAGRAPH</u>	PAGE
PURPOSE	7000	7-3
BACKGROUND	7001	7-3
APPLICABILITY	7002	7-3
RECREATION AND OFF-DUTY SAFETY PROGRAM		
MANAGEMENT	7003	7-3
INSPECTIONS AND REQUIREMENTS	7004	7-3
PERSONAL PROTECTIVE EQUIPMENT	7005	7-16
RECREATION AND OFF DUTY HAZARD	7006	7-16
TRAINING,	7007	7-16

## CHAPTER 7

## RECREATION AND OFF-DUTY SAFETY PROGRAM

- 7000. <u>PURPOSE</u>. To establish policy and provide guidance for the Recreation and Off-Duty Safety Program. Program emphasis will be to enhance the safety and quality of life for all personnel.
- 7001. <u>BACKGROUND</u>. <u>DoDDir</u> 1000.3, provides guidance and assigns the responsibility to CMC for accident prevention and safety program development which includes sports, recreation, and home hazards.
- 7002. <u>APPLICABILITY</u>. The program applies to all persons participating in recreational activities aboard MCB, Quantico.
- 7003. <u>RECREATION AND OFF-DUTY SAFETY PROGRAM MANAGEMENT</u>.
  Responsibilities shall be shared by the Director, Morale, Welfare and Recreation Division (MWR), range safety personnel, and Safety Division representatives, commanders, and participants.
- 1. Morale, Welfare and Recreation Division Safety Committee. The Base MWR Division will establish an MWR Safety Committee, chaired by the Director, MWR Division, or designee. Some members of the MWR Safety Committee may also be designated as Unit Safety Representatives (USR). The MWR Safety Committee shall meet quarterly. Committee members will conduct quarterly safety inspections of all nonappropriated fund facilities and equipment. Committee minutes and inspections will be documented and maintained.
- 2. <u>Facilities and Equipment Evaluation</u>. Recreational facilities and equipment will meet all DoD, DON, Marine Corps, and nationally accepted safety standards.
- a. Plans and specifications for recreational, administrative, and maintenance facilities will be reviewed by Facilities Maintenance personnel and the Base Safety Division prior to construction or renovation.
- b. The Base Safety Division is able to review all major equipment acquisitions,
- 7004. <u>INSPECTIONS AND REQUIREMENTS</u>. An effective inspection program requires the cooperative efforts of the Base Safety Division, MWR facility managers, supervisors, and MWR safety representatives. Daily inspections of MWR facilities and equipment will be conducted by each MWR facility manager. Deficiencies that cannot be

corrected will be reported to the USR and the Director, MWR Division. Quarterly inspections are required for swimming pools, beaches, marinas, automotive and woodworking hobby shops, clay pigeon/skeet/shotgun ranges, and athletic fields. Quarterly inspections shall be conducted by the MWR division safety representative. A summary of findings from the above activities will be maintained by the USR. Annual inspections of sports and recreation facilities and equipment will be conducted by the Base Safety Division. Marine Corps Orders will be cited and nationally recognized standards will be used.

1. <u>Indoor Facilities</u>. Requirements and recommendations specified below will be incorporated in the MWR safety program.

# a. Automotive Hobby Shop

- (1) Staff members will provide qualification training for patrons to safely operate power tools and equipment, hydraulic lifts, welding, and spray painting equipment. Qualifications will be recorded and maintained in the shop by MWR management personnel. Qualification training will emphasize proper use of equipment, safety precautions, and Personal Protective Equipment (PPE).
- (2) Patrons will be provided with appropriate PPE. Signs will be placed on or adjacent to each piece of equipment where PPE is required. PPE will be readily available, serviceable, and its use enforced by the shop supervisor and workers. Eye protection will be worn whenever working under vehicles. When using equipment, conducting operations, or working in a designated hazardous noise area, hearing protection use will be enforced.
- (3) Daily inspections of the auto hobby shop will be performed by the supervisor. Annual inspections will be conducted by the Base Safety Division.
- (4) Shop floors will slope toward drains equipped with oil separators. If separators are not designed into the facility, the drains shall be covered to prevent hazardous liquids/materials from entering them. Drain hazardous liquids into suitable marked containers and dispose of according to hazardous waste control requirements. Dispose of used absorbent material in marked waste containers. Grease, oil, water, and other liquids spilled on the floor will be cleaned immediately to prevent slipping hazards. For grease and oil spills, a noncombustible absorbent material will be used. Oily rags must be placed in a self-closing metal container labeled "Oily Rags Only."
- (5) All welding areas will be approved by the Fire Chief, Fire Protection and Prevention Branch, Security Battalion. Only certified welders will be allowed to weld. Welding certification tests used to qualify patrons desiring to weld will be coordinated with MCB welding shop. Tests will be reviewed annually by the Base Safety Division.

Welding will not be done on fuel tanks until removed from the vehicle, purged, and checked for vapors by a gas free engineer. Goggles, gloves, helmets, and shields that provide maximum eye protection shall be worn. During heavy work, flame-resistant material such as gauntlet gloves, aprons, and leggings shall be worn. Additionally, safety shoes shall be worn when working with heavy objects. Cotton clothing shall not be worn. Woolen clothing is preferable. Sleeves and collars must be kept buttoned. Trouser cuffs shall be turned down. Noncombustible barriers shall be placed around the welding area for eye protection and to minimize vapors from entering the shop area. Shop welding rules will be posted and strictly enforced.

- (6) Aisles and walkways will be kept clear of parts, tools, and equipment. Valve covers, broken fan belts, wrenches, and other tools laying around the work **area** are trip hazards.
- (7) Tools shall be free of cracks, worn parts, broken or rounded tips, chips, mushroomed or loose heads and broken handles. Extension cords and electric tools will not have broken plugs, frayed or taped insulation. Electric tools will have an intact ground wire prong or be double-insulated. Tools will be used only for their designed purpose. Defective tools will be taken out of service and tagged. Compressed air hoses that are cracked, worn, or frayed shall be taken out of service and tagged. Compressed air must be reduced below 30 psi for cleaning dirt and dust from parts and the work area. Compressed air shall not be used to clean clothes or the body. Compressed air used for power air tools will not exceed 90 p.s.i. Air must be shut off and all pressure in the line must be released before disconnecting the air hose from the air line.
- (8) Grinding wheels equipped with an adjustable work or tool rest will be kept with a 1/8-inch clearance between the wheel and rest; the tongue guard kept within 1/4-inch of the wheel. PPE will be worn at all times. Side wheel grinding is strictly prohibited unless the wheel is approved for such grinding.
- (9) Instructions for the operation of electric and hydraulic lifts will be posted in the vicinity of the lift. Patrons are required to review the instructions prior to operating the lift. The facility manager will ensure familiarity with the equipment by reviewing the operating features with each patron before use. Hydraulic jack teeth clamps will be kept clean and not worn. Jack stands must be used under a vehicle whenever a hydraulic jack is used. The weight limits posted on jacks shall not be exceeded. All jacks and other hoisting devices will be load tested annually to meet the manufacturer's recommendations. Written documentation of load testing will be noted on each jack or hoist.
- (10) Vehicle exhaust is a major source of carbon monoxide. A tailpipe exhaust system will be used when vehicles are running in the shop. At no time will work be permitted in the shop with the vehicle running and the tailpipe exhaust system not in operation.

- (11) There is very little exposure to asbestos in most body shops. Asbestos dust is usually associated with clutch and brake work. Dust must be vacuumed from the drums and floor with a special vacuum that has **a** high-efficiency particulate air (HEPA) filter. Dry sweeping, mopping, or cleaning with pressurized air is strictly prohibited. HEPA filter use will be enforced by the shop manager.
- (12) Solvents will be used in well-ventilated areas only. Appropriate PPE including goggles, gloves, and aprons will be worn.
- (13) Automotive body fillers activated by chemical hardeners can cause rashes and sores if hardeners come in contact with the skin. If a patron's skin comes in contact with any hardener, wash it off immediately with soap and water. Use gloves and a long sleeve shirt to prevent exposure.
- (14) Electric power cables and cords will be constructed of heavy armored rubber or similar materials to prevent damage from oil and grease. Power cables and cords on all portable and fixed electrically operated equipment will be of three-wire construction and equipped with a ground prong (except double insulated tools). Cables will be constructed to provide automatic ground of equipment through integral conductors. They will not be strung across shop floors. All 125-volt single-phase 15 and 20 ampere receptacles installed in areas for electrical automotive diagnostic equipment, electrical hand tools, or portable lighting devices shall be equipped with ground fault circuit interrupter protection. Portable lights used in the shop area will be equipped with handle, lamp-holder, hook, and a guard attached to the lamp-holder or handle.
- (15) Per NFPA-101, in each automotive repair shop, the area between the floor and a point 18 inches above the floor is considered a Class I, Division 2 location except where there is mechanical ventilation providing a minimum of four air changes per hour. Drink machines and refrigerators equipped with motors below 18 inches will not be allowed in the bay areas unless equipped with explosion proof motors.
- (16) Transmission jacks shall be equipped with leveling devices to prevent transmissions from rolling or falling off.
  - (17) "No Smoking" signs shall be posted.
- (18) Plumbed eye wash stations will be tested weekly and portable eye wash stations will be checked quarterly. Facility managers will keep written documentation of the inspection.

# b. Spray Painting

(1) The health hazards associated with spray painting operations require special precautions. Patrons will be advised in writing of the hazards to which they may be exposed. Patrons will also be supervised throughout the spray painting evolution. A

recommended summary of spray painting hazards and operating procedures is **available** from Commander, Naval Safety Center, Code 46.

- (2) Spray painting operations using compressed air spray guns or airless spray guns shall be conducted inside a paint booth. Local exhaust ventilation will be in operation at all times when paint materials are being used. Spray painting with aerosol spray cans should be conducted inside a paint booth.
- (3) Gloves shall be worn to prevent prolonged or repeated contact with paint materials. Most types of protective gloves can be used with water-based paint. Manufacturer's Material Safety Data Sheets shall be consulted for specific glove types to be used with other paint materials.
- (4) Splash-proof goggles will be worn at all times while using paint materials (mixing, brushing, rolling, or spraying). A full-length face shield may also be required when engaged in spraying operations.
- (5) A full face shield in addition to eye goggles is required when pouring or mixing paint materials such as paint strippers or thinners.
- (6) The use of a coverall with sleeves rolled down is mandatory for spray-gun painting. Coveralls are not required for touch-up jobs.
- (7) A head covering is required when painting above waist level. In most instances, a utility cap is sufficient. The use of a hood is desirable when spray-qun painting.
- (8) A protective skin cream on exposed parts of the skin shall be used when using paint materials containing sensitizers (examples vinyl, vinyl-alkyd, polyurethane, epoxy, or alkyd paints). The use of a skin cream is recommended for spray-qun painting.
- (9) Containerize paint materials and thinners and return to the flammable liquid storage cabinet, paint locker, or flammable liquid storeroom upon completion of the day's work. Keep paint containers closed.

## c. Gymnasiums

(1) Racquetball and basketball courts shall be free of obstructions on their surfaces, around their edges, and overhead. Court floors will have a smooth finish and be free of splinters and slippery substances. All lights shall be adequately shielded to protect them from breakage or damage. Portable and stationary bleachers shall be inspected every 2 years by Facilities Maintenance personnel. Daily inspections shall be done by the facility staff.

- (2) Locker and shower rooms shall be kept neat, clean, and free of slip or trip hazards. Floor surfaces in, and immediately outside, shower rooms will be made of nonslip or abrasive material to permit good footing. Shower valves shall be set to a maximum temperature of 100 degrees Fahrenheit. Shower-room light fixtures will be suitable for damp locations.
- (3) Weight rooms shall have safety procedures posted. Proper warm-up and operating instructions must be conspicuously posted.

  Minimum clearance may vary; however, a safe distance shall be maintained to ensure the **safe** operation of equipment as established by the manufacturer. Collars or clamps shall be used for free weights. A spotter or an automatic spotter is required for bench pressing. A weight belt is also recommended when lifting free weights. Free weights will be stored on racks when not in use.
- (4) A minimum clearance of 3 feet from basketball sidelines and end lines will be maintained. It is recommended that walls within 3 feet of sidelines and end-lines be padded to a height of 6 feet. Floor mats should be provided at each basketball court entry point to allow players to clean their shoes prior to entering the court.
- (5) Doors on racquetball and handball courts should open inward. Doorknobs and handles should be recessed on the inside of racquetball and handball court doors. The requirement to wear approved racquetball eye protection will be conspicuously posted. Wearing of eye protection while playing racquetball shall be enforced by the MWR staff. Personnel refusing to properly wear eye protection will not be allowed to continue to play. Racquetball eye protection shall be made of polycarbonate or similar material have side protection and meet American Amateur Racquetball Association specifications. Racquetball rackets will be equipped with wrapped handles and wrist straps. Racquetball spectator areas shall be designated.
- (6) Sauna construction shall meet or exceed industry standards and be approved by the Fire Chief, Fire Prevention Branch, Security Battalion, and the Director, Safety Division before installation. A thermostatic control device shall be installed which prevents the sauna from exceeding 200 degrees Fahrenheit. The temperature in steam rooms shall not exceed 120 degrees Fahrenheit. Thermostatic control devices will only be accessible to workers. Carpeting shall not be used for floor covering. A sign shall be conspicuously posted, listing rules for operation and use. Heaters shall be shielded to prevent burns. Saunas and steam rooms will be equipped with an alarm for activation in an emergency. Lighting fixtures will be suitable for damp locations. Temperature readings will be checked a minimum of twice daily by an MWR Safety representative. Prior to closing the facility, heaters should be turned off.

# 2. Outdoor Facilities

## a. Camp Grounds and Picnic Areas

- (1) A well drained, gently sloping area is preferred. Sites shall be free of rock outcrops and heavy undergrowth. Weeds shall be regularly cut to prevent coarse stubble from developing and to reduce insect, snake and small animal hazards. If a lake shore is considered, it shall be on solid beach, free of boggy areas and caving banks.
- (2) Campgrounds and picnic areas shall be provided with an adequate supply of safe drinking water. Water hydrant stations with nonthreaded, self-closing faucets, properly drained to prevent standing water, shall be provided within,150 feet of the camp site and individual picnic area. In locations where a water system is not available, a potable water source shall be provided from a central pick-up station. Nonpotable water systems shall be adequately identified to prevent consumption. If temporary facilities are provided for pop-up trailers and recreational vehicles, adequate potable water and sewage facilities shall be provided.
- (3) Durable, waterproof and rodent proof 32 gallon trash containers shall be provided near the access road and a maximum of 150 feet from any camping or picnic area. These containers shall be stationary to minimize being overturned by animals. They shall be equipped with lids and be maintained in a clean and odor-free condition at all times. The use of 55 gallon drums as containers shall be discouraged because when filled, their large size makes them difficult to empty and clean. Trash and garbage shall be removed daily. More frequent collections may be necessary. Ashes should be removed from grills and cleaned after each use with a coarse bristle wire brush. In areas where water under pressure is available, modern comfort stations shall be located within an approximate radius of 300 feet for campgrounds and 500 feet for picnic areas.
- (4) The use of chemical toilets in remote areas may be the only practical solution to sewage disposal. Frequent cleaning and maintenance should be required to avoid odors in comfort facilities. Safety awareness literature on poisonous snakes and insects should be made available for patrons.

## b. Horse Stables

- (1) Barns shall be limited to two stories in height. Signs shall be posted indicating the location of emergency phones and fire extinguisher. No smoking signs shall be posted.
- (2) Procedures for housekeeping shall be maintained. Noncombustible trash containers, for other than stall waste, shall be provided. Storage of hay or straw is prohibited in aisles.

- (3) Multiple-outlet extension cords are prohibited. Extension cords will be of one continuous length which connects one appliance to fixed receptacles. The cord shall be listed for hard service and properly sized for the intended application. Extension cords will be used only on a temporary basis. Extension cords shall not be supported by any metal objects such as nails, screws, hooks, or pipes. Portable electrical heating and cooking appliances shall be of a type that automatically interrupts electrical current to the heating element when the appliance is not in its normal operating position (tip-over disconnect). Portable heating and cooking appliances shall be used only in designated spaces.
- (4) The storage of flammable and combustible liquids, except for medicinal purposes, shall be prohibited in the barn. Fire hydrants shall be provided within 300 feet of the building. Fire extinguishers shall be provided no more than 75 feet travel distance from any point of the building. The facility manager should brief patrons on smoking regulations, fire emergency notification, location of fire extinguishers and use of extension cords and appliances.

## c. <u>Marinas/Boat Rentals</u>

- (1) Patrons renting MWR boats shall be provided qualification training by MWR staff members which includes basic rules, knowledge of personal flotation devices, applicable safety requirements and emergency procedures. Written qualifications will be evaluated and maintained by MWR personnel. In addition to these minimum requirements, state requirements for recreational boaters must be met. Courses are offered by state agencies, U.S. Coast Guard Auxiliary, U.S. Powerboat Squadrons, and the American Red Cross. Completion of such a course is evidence of qualification.
- (2) MWR staff members will perform a pre-seasonal safety survey and daily safety inspections of all boats and equipment. The MWR safety representative will document quarterly inspections. The MWR safety representative shall assist the Base Safety Division with annual inspections of MWR marine facilities.
- (3) U.S. Coast Guard approved personal flotation devices (PFD) shall be worn while operating the following MWR watercraft: canoes, paddleboats, personal watercraft, rowboats, sailboats without fixed keels which rely on crew weight for stability such as sailboards, Lasers, Hobie Cats, etc., and motorboats less than 16 feet in length. PFD's shall be aboard and ready for immediate use by operators and crew of all other MWR watercraft. All boats, regardless of size, when used for training or if operated between the hours of sunset and sunrise (except for charter boats), shall require the use of PFD's. Marina operators may set stricter requirements for use of PFD's based on evaluation of patron's qualifications, weather and water conditions. For boats 16 feet and longer, a Type IV throwable device will be provided. PFD's shall be free of rips, tears, and other unserviceable conditions.

- (4) Motorboats (except outboard and diesel) shall be equipped with a Coast Guard approved carburetor backfire flame arrestor. boats with enclosed gasoline engines, a ventilation system is A Coast Guard or Underwriter's Laboratories "marine type" fire extinguisher will be provided on boats with enclosed or permanently installed gas tanks. A load-capacity plate with occupancy limits (weight and number of persons and horsepower) shall be posted in each boat. Boats 16 feet and longer shall carry three daytime and three nighttime visual distress signals. For boats less than 16 feet in length which are used between sunset and sunrise only, daytime visual distress signals are not required. shelf-life date for pyrotechnic signals shall be current. should be stored in ammo boxes while in the facility if not provided with a suitable storage container. A fire symbol should also be located on the outside door. No smoking signs must be posted.
- (5) Boats used between sunset and sunrise will be equipped with lights. All boats less than 39 feet in length must have a sound signaling device such as a horn or whistle. For boats over 39 feet, a bell as well as a whistle or horn shall be provided. Boaters should leave a float plan stating departure time, destination and time of return.
- (6) Charter boats, less than 65 feet and carrying six or fewer passengers, require an operator who holds a U.S. Coast Guard Motorboat Operator's license. If more than six passengers are carried, a Master's license is required and the boat must be inspected by the U.S. Coast Guard.
- (7) All walking surfaces on piers and docks shall be free of protruding nails, splinters, holes or loose boards and have a slip-free surface. Adequate lighting shall be provided on piers and docks. Handrails 42 inches in height with intermediate railings should be provided for main entrance walkways to docks and piers to prevent patrons falling overboard. At least one U.S. Coast Guard approved throwable device such as a life ring with 60 feet of 3/8 inch diameter rope should be available on each dock. On docks more than 200 feet in length, a device should be located every 200 feet. Extinguishers listed for Class A, B, and C fires shall be installed at each end of a pier and bulkhead that exceeds 25 feet in length. No more than 50 feet will separate extinguishers.
- (8) The marina or boat yard operator shall post in a prominent location, or provide boat operators with, a list of safe operating procedures to include the use of portable charcoal grills for cooking, trash disposal, no-smoking areas, location of fire extinguisher and hoses, instructions for turning in a fire alarm, and fueling instructions. Gasoline delivery nozzles shall be equipped with a self-closing control valve that will shut off the flow of fuel when the operator's hand is removed from the nozzle. An emergency fuel shut-off control switch shall be installed more than 20 feet but less than 100 feet from the gasoline dispenser. The control device shall be readily labeled and accessible at all times of operation.

- (9) Electrical wiring located by **boat ramps shall be** installed underground to avoid possible contact with masts and other parts of boats. If electrical wiring is not installed underground, the wiring within yard areas shall be routed to avoid wiring within or across any point of the yard that may be used for moving boats. Avoid wiring closer than 20 feet from the outer edge or any portion of the yard that may be used for moving boats or stepping or unstepping masts. Clearance for wiring in other portions of the yard shall be not less than 18 feet above-ground in open areas and not less than 8 feet above the highest point of roofs when above buildings. Warning signs to alert operators of wire clearance shall be visible.
- d. <u>Boating</u> on the <u>Impounded Waters of Marine Corps Base</u>. Boating is permitted as follows:
  - (1) <u>Breckinridae Reservoir</u>. Electric outboard motor or less.
  - (2) Dalton Pond. Electric outboard motor or less.
- (3) <u>Lunga Reservoir</u>. Outboard motor of 10 horsepower or less.
  - (4) R-6 Pond. No mechanical power.
  - (5) Barrett Pond. No boats permitted.
- (6) Boating is not allowed between sunset and sunrise. However, privately owned and operated boats being used for recreational fishing or frog gigging are permitted.
- (7) Boats with power in excess of the manufacturer's rating for the boat will not be permitted on impounded waters.
- (8) All persons operating boats on the impounded waters of the reservation should be qualified swimmers. Any person who is not a qualified swimmer is required to wear approved PFD's.
- (9) Personnel operating boats will go to the nearest safe shore whenever adverse weather approaches. It is not necessary to return to the launch site, any safe haven will do until the danger passes.
- (10) Personnel 14 years of age or under will not be permitted to operate a boat and will wear a PFD.
  - e. Fueling of Boats. The following rules will be followed
- (1) Fueling will be completed before dark except in emergencies.

- (2) Whenever a boat is moored at the fuel dock do not smoke, strike matches, or throw electrical switches; stop **all** engines, motors, fans, and devices liable to produce sparks; and turn off lights and galley fires.
- (3) Before starting to fuel, verify that the boat is moored securely; close all ports, windows, doors, and hatches.
- (4) During fueling, keep nozzle of hose or can in contact with fuel opening to guard against possible static sparks and ensure that no fuel spills/vapors get below deck.
- (5) After fueling is completed, close fill opening; wipe away all spilled fuel; open **all** ports, windows, doors, and hatches; permit boat to ventilate for at least 5 minutes; and check to see that there is no odor of gasoline in the bilges or below deck spaces before starting engine.
- f. <u>Plavsrounds.</u> The following requirements and recommendations apply to playgrounds owned and operated by MCB. For playgrounds operated by the Child Care Center, also refer to specific requirements in MCO 1710.30, and the Handbook for Public Playground Safety published by the Consumer Products Safety Commission (CPSC).
- (1) Playground equipment shall be carefully selected for the age group that will use it. Rules and times of operation should be posted. Playground monitors will be knowledgeable about playground equipment and trained in first aid and CPR. Daily inspections of equipment and playgrounds shall be conducted by the facility manager. Quarterly inspections shall be conducted by the MWR and Quantico Dependent Schools System safety representatives with results forwarded to the Director, MWR Division and the Director, Safety Division. Warning signs should be posted in hazardous areas such as swings and slides. Equipment that is poorly designed or installed, rusted, or deteriorated shall be tagged "Off limits" and roped off until repaired or removed. A file shall be maintained by the MWR safety representative to record repairs. Information should include the manufacturer's name, model number, and date of purchase.
- (2) Playground equipment will be located over impact absorbing material. It shall be approximately 6 to 12 inches deep. Drainage of playground areas shall ensure  $\bf a$  relatively dry surface.
- (3) Playgrounds near abandoned wells, ravines, or bodies of water, etc., shall be fenced to prevent children from wandering into dangerous areas. Playground equipment shall be placed a safe distance away from ball fields.
- (4) Equipment shall be anchored in concrete <u>below</u> the ground. The diameter of swinging exercise rings should be smaller than 5 inches to prevent a child's head from being entrapped. Ends of bolts and tubing on equipment shall be covered with protective caps that

cannot be removed by hand. "S" hooks shall be pinched closed. Playgrounds will be free of tripping hazards such as roots, rocks, or other obstacles. Paint on equipment shall be lead-free with no peeling or chipping. Paints and other similar finishes for playground equipment should meet current CPSC regulations for lead in paint (0.06 percent maximum lead by dry weight). Purchasers of playground equipment should obtain documentation from the manufacturer that preservatives or other treatments applied to the equipment does not present a hazard to patrons. Wood structures must be free from cracking or splitting. Moving parts that could pinch or crush should be concealed on gliders, seesaws, and merry-go-rounds.

- (5) Rungs on climbing equipment shall be designed with **a** slip-resistant finish. Additionally, rungs of climbing apparatus should be spaced evenly and far enough apart (at least 9 inches) to prevent head entrapment.
- (6) A minimum clearance of 24 inches should be maintained between each swing and 30 inches from the frame structure. seats shall be constructed of lightweight material such as plastic, rubber or canvas with edges rounded or smoothly finished. Free swinging ropes shall not be used because they may fray or form a loop, creating a strangulation hazard. Slides shall be equipped with 4-inch side borders for their entire length. Slides should have a protective barrier at the top to prevent falls while a child is changing from a climbing to sliding position. (For slides over 4 feet high, the barrier is to be at least 38 inches in height). horizontal platform at the top of the slides should be at least 22 inches in length and as wide as the slide. The steps on slides should be at least 15 inches wide with a slip-resistant finish. Steps on slides should be evenly spaced with at least 7 inches and not more than 11 inches between them. Slides should have continuous handrails on both sides of their steps that allow a child to stand erect over each step. Slides should be located in a shaded area to prevent the metal from becoming hot because of the sun.
- (7) Merry-go-rounds shall have handrails that do not protrude beyond the edge of the base.
- (8) Covered receptacles shall be provided for disposal of trash.
- (9) For other requirements refer to the specifications listed in CPSC Handbook for Public Playground Safety.

# h. Playing Fields

(1) Playing fields must be kept relatively flat and free of holes, ridges, stones, and other debris. Goal post, light poles, guy wires, and exposed fence posts inside the playing field shall be padded. Padding should be 8 foot in height to prevent injury to

players. Playing fields shall be marked with noncaustic materials. Players' shoes will be made of rubber material only and suitable for playing surfaces.

- (2) MWR staff members shall perform daily inspections during the season when the playing fields are being used. Portable and stationary bleachers shall be inspected every 2 years by Facilities Maintenance personnel. The MWR safety representative shall inspect bleachers prior to each season. Facility managers will inspect them daily. Bleachers over 4 feet in height will be provided back and side guard rails with intermediate railings to prevent falls.
- (3) Softball spectator bleachers should be placed behind backstops unless the height of sideline fences are 8 feet. Sideline fences under 8 feet high do not adequately protect spectators while sitting or standing. Warning tracks should be provided as well as fences 8 feet high in the outfield for players' safety. The top bar of outfield fences lower than 8 feet creates a serious collision hazard for players and should be padded. Fences will be in good repair and free of sharp edges protruding into the playing area. A 20-foot-high backstop with a 5 foot overhang should be installed. Dugouts should be faced with fencing material and sidelines will be kept free of tripping hazards. Breakaway or safety bases should be used for all softball games. These bases will help reduce sliding injuries. Softball bats will be equipped with handgrips of a nonslip material.

# i. Recreational Shooting Ranses

# (1) <u>Archery</u>

- (a) Use of outdoor archery ranges will be limited to no earlier than one-half hour after sunrise and no later than one-half hour before sunset. The range shall be 426.5 feet long. Roped clear space on each side of the range shall be at least 32.8 feet. Roped clear space behind targets shall be at least 82 feet or 41 feet if there is a bunker. Range rules shall be permanently posted at access points. Warning signs shall be posted at the back and sides of the range. All equipment shall be checked by MWR range personnel prior to use. Only target-type arrows shall be used for range activities. Shooting stations shall be at least 16.5 feet apart and aligned with the designated target.
- (b) The range should be supervised at all times. Archers should not notch arrows until they have ensured that all participants have returned to the line and the range is clear. All participants shall retrieve arrows at the same time. All noncompound bows should be unstrung when not in use. Bows should be hung on a ground quiver between rounds. Proper safety clothing (including hand and forearm protection, shirts without pockets, flaps or buttons) shall be worn by archers.

- (2) <u>Clav Piqeon/Skeet/Shotqun Range</u>. FMFM 0-8, Basic Marksmanship, shall be followed to ensure the safety of patrons. Also see personal protective equipment requirement cited in paragraph 7005.6 below.
- j. Other Recreation Facilities and Activities. For other specific recommendations and requirements refer to MCO 1710.30, MCO 1710.35, OPNAVINST 1710.2, and Chapter 4 of NAVMED P-5010.
- 7005. <u>PERSONAL PROTECTIVE EOUIPMENT</u>. Use of PPE will be enforced by supervisors during all hazardous recreational activities. The following activities also require the use of PPE:
- 1. <u>Bicycling</u> Recreational bicyclists will wear light colored clothing (during reduced visibility conditions, reflective clothing will be worn). The use of ANSI or <u>Snell</u> Memorial Foundation approved bicycle helmets is required. Head phones for portable radios, cassette players and CD players, will not be worn.
- 2. <u>Boxing</u> Mouth guard, U.S.A. Amateur Boxing Federation approved protective headgear, gloves and groin protector for sparring and competition are mandatory.
- 3. Hunting Blaze orange clothing per Marine Corps requirements, or Virginia state law, is required.
- 4. <u>Jogging</u> When jogging on roadways, joggers are encouraged to wear light colored clothing (during reduced visibility conditions, reflective clothing will be worn). Head phones will not be worn while jogging or walking. Run/Jog facing traffic on the left shoulder at least 3 feet off of the traveled roadway. Never run more than two abreast.
- 5. <u>Karate</u> United Tournament Karate Rule Book approved head, mouth, groin, shin and foot protection are required.
- 6. <u>Clav Piqeon/Skeet/Shotgun Range</u> ANSI approved protective eyewear and hearing protectors are required.
- 7006. <u>RECREATION AND OFF-DUTY HAZARD ABATEMENT</u>. The Base Safety Division shall include recreation and off-duty deficiencies related to MWR activities with risk assessment codes 1, 2 or 3 that cannot be corrected within 30 days. In most cases discrepancies affect both workers and patrons.

- 7007. TRAINING. Education is vital to the success of every safety program. Quarterly hazard awareness training, seasonal sports briefs and qualification training will be provided to ensure individuals are aware of specific hazards, PPE requirements, and procedures for protecting themselves while off-duty.
- Hazard Awareness Training. MWR Division safety representatives and workplace supervisors will ensure quarterly hazard awareness training is conducted for their personnel. MWR staff personnel will assist the Director, MWR Division with the development of recreational training material. A variety of training methods and materials may be used including safety stand-downs, division and department briefs, supervisory briefs, videos and guest speakers. Safety materials in the form of brochures, pamphlets, magazines, or newsletter articles shall be distributed by MWR personnel. The Naval Safety Center's Recreation, Off-Duty Safety Resource Manual (NOTAL) contains information about quarterly hazard awareness training. Included are lesson plans, briefing sheets, fact sheets from CPSC, U.S. Coast Guard, and the National Safety Council detailing hazardous items and products around the home. Resource manuals are available from the Commander, Naval Safety Center (Code 46), 375 A Street, Norfolk, VA 23511-4399. Documentation of the training conducted and of attendees is required.
- 2. Qualification Training. Patrons using MCB, Quantico's automotive and woodworking hobby shop equipment and recreational watercraft are potentially exposed to serious hazards. Their qualification for each of these activities will be noted and evaluated. Competent MWR staff members will provide qualification training to ensure patrons are qualified to safely operate power tools and equipment, hydraulic lifts, welding and spray painting equipment, and watercraft. Qualification training for watercraft will include basic rules of the road, knowledge of personal flotation devices, applicable safety requirements and emergency procedures. Courses are offered by state agencies, U.S. Coast Guard Auxiliary, U.S. Powerboat Squadrons, and the American Red Cross. Completion of such a course is evidence of qualification. For power equipment, safety precautions, equipment guards and PPE will be emphasized. Automotive and Woodworking Hobby Shop Qualification Guides and Small Boat Qualification Guides have been developed to provide basic familiarization with these activities. They may be used to assess qualification. They are available from Commander, Naval Safety Center (Code 46). A record of qualifications for each of these activities will be maintained. It is recommended they be kept at each facility.
- 3. <u>Sports Briefs</u>. Intramural safety briefs will be conducted by MWR staff members. Coaches and game officials will be briefed on rules of the game, safety precautions, and personal protective equipment requirements. Proper conditioning techniques, warm-up and cool-down exercises will be discussed. Coaches shall use this information to brief their players. Documentation will be maintained.

4. <u>Training Records</u>. Records for quarterly and qualification training will be maintained for 2 years. Documentation will include a log of scheduled training, **dates** of training and names of attendees. Each department should maintain its own training records. These records will be available for annual inspections.

# CHAPTER 8

# HAZARD COMMUNICATION PROGRAM

	PARAGRAPH	PAGE	
PURPOSE	8000	8-3	
BACKGROUND	8001	8-3	
INFORMATION	8002	8-3	
RESPONSIBILITIES	8003	8-4	
HAZARD COMMUNICATION TRAINING	8004	8-6	
CHEMICAL LABELING	8005	8-7	
FIGURES			
8-1 MATERIAL SAFETY DATA SHEET (MSDS)		8-8	
8-2 FEDERAL SUPPLY CLASSES IN WHICH ALL ITEMS MUST BE IDENTIFIED AND CERTIFIED		8-10	
8-3 FEDERAL SUPPLY CLASSES IN WHICH ONLY HAZARDOUS ITEMS NEED BE IDENTIFIED		8-11	
8-4 HAZARDOUS MATERIAL INVENTORY FORM		8-13	
8-5 SAMPLE LETTER TO MANUFACTURER REQUESTING MATERIAL SAFETY DATA SHEETS		8-14	
8-6 WRITTEN HAZARDOUS COMMUNICATION PROGRAM STANDARD OPERATING PROCEDURES		8-15	

## CHAPTER 8

## HAZARDOUS COMMUNICATION PROGRAM

- 8000. <u>PURPOSE</u>. To promulgate instructions and provide guidelines for the identification and utilization of potentially hazardous substances within the confines of MCB, Quantico.
- 8001. BACKGROUND. Subsequent to the enactment of the Occupational Safety and Health Act (OSHAct) of 1970, it soon became apparent that workers were unaware of the potential effects of the many chemicals and other substances they were working with, or exposed to, in their places of employment. This absence of information eventually culminated in the so called "Worker's Right to Know Law" as defined in Title 29 CFR, Part 1910 which became law in May 1987. By incorporation into MCO 5100.8, the Marine Corps announced its adoption of the OSHA codes as the standard for the Marine Corps and established a system designed to provide the Base with the information required to comply with the law and to protect military and civilian workers in the workplace. This system is the Hazard Communication Program.

## 8002. INFORMATION

- 1. Basic to the Hazardous Communication Standard is the information contained in a Material Safety Data Sheet (MSDS). Figure 8-1 is an example of the format developed by the Department of Labor for this purpose; however, manufacturers may utilize their own format, as long as the same information is provided. This document contains specific information about a product's chemical composition, its harmful aspects, and the basic rules for avoiding overexposure. It also addresses spills, fires, ventilation requirements, personal protective equipment (PPE), and the symptoms of overexposure to include the first aid techniques applicable to the treatment of overexposure. Because it contains information intended for both the employer and worker, it must, by law, be displayed in the work center.
- 2. It is, therefore, important for each CG/CO/OIC/director/ supervisor to know if an item they are ordering or currently using contains toxic material or is potentially harmful to health. Figures 8-2 and 8-3 will provide this information. If an item under consideration is in any one of the classes identified in these figures, it is potentially harmful and requires an MSDS.

#### 8003. RESPONSIBILITIES

## 1. Commanding Officers/Directors

- a. Ensure new supervisors attend the Base Hazard Communication Training within 90 days of appointment to a supervisory position.
- b. Ensure supervisors have implemented a written hazard communication program SOP to address the following:
  - (1) Master hazardous chemical list.
  - (2) Use of MSDS's.
  - (3) Labels and other forms of warning.
  - (4) Employee training.

### 2. Supervisors

- a. Review and inventory suspected hazardous stock on hand. An annual inventory will be submitted prior to 30 November each year to the Base Safety Division (B 51).
- (1) MCB Form 5100/4 (EF), Hazardous Material Inventory should include the common name, chemical name, the amount on hand, maximum at any one time, total annual usage, and the location by unit, building, and room. (Figure 8-4).
- (2) Inventories will also be submitted to the Safety Division whenever any of the following occur:
  - (a) New hazardous materials are added to stock.
- (b) Hazardous materials are dropped from use and will not be restocked.
- (C) A process change occurs which significantly alters the quantity on hand of a hazardous material.
  - b. Obtain MSDS's for stock items.
- (1) Routinely request MSDS's when submitting DD Form 1149 (EF), Requisition and Invoice/Shipping Document, for hazardous materials by typing at the bottom of the request, "It is requested the MSDS(s) for this (these) product(s) accompany shipment of the hazardous material(s) requested."
- (2) Write to manufacturer directly requesting MSDS's using the format in figure 8-5.
- (3) MSDS's for items purchased through Government Supply Agency (GSA) and having national stock numbers (NSN) may be

obtained from the Base Safety Division. Requests should contain as much information as is known about the material; i.e., NSN, trade name, chemical name, ingredients, manufacturer, etc.

- c. Furnish the Base Safety Division a copy of MSDS's for products when they are initially received.
- d. Ensure all military and civilian workers have direct access to the MSDS whenever a worker is using **a** hazardous material. Keep MSDS's in **a labeled** binder in the work area.
- **e.** Ensure military and civilian workers read and understand the MSDS prior to using a hazardous material.
- f. Ensure  $\underline{\text{all}}$  supervisors attend mandated Hazard Communication Training conducted by the Base Safety Division.

## 3. <u>Director, Logistics Division</u>

#### a. <u>Issue Points and Self-Service Store</u>

- (1) Obtain an MSDS for each hazardous material stocked and available for purchase. When these items are issued, ensure that a copy of the MSDS is forwarded with the order. A copy of the initial MSDS will be forwarded to the Base Safety Division.
- (2) Ensure at the time of order that hazardous material is identified and noted on all requests. A copy of orders for hazardous material not **normally carried** will be forwarded to the Base Safety Division.

### b. <u>Inventory Control Personnel</u>

- (1) Maintain  ${\bf a}$  list of locally purchased items within the supply system that require MSDS documentation.
- (2) Maintain a capability for the reproduction of the MSDS's for use in the issue **points** and Self-Service Store.

#### 4. Marine Corps Base Safety Division

- ${\tt a.}$  Maintain the master inventory of all hazardous materials aboard MCB, Quantico.
- b. Maintain the supplemental catalog of all  ${\tt MSDSs}$  for locally purchased nonstandard stock hazardous material items listed in the master inventory.
- c. Serve as the central point of contact for all information concerning the master inventory and supplemental MSDS catalog file. Make this information readily available to anyone who has a bona fide requirement for this information aboard the base.

- d. Serve as point of contact for all external inquiries related to the identification of hazardous material.
- e. Coordinate with the Head, Occupational Health/Preventive Medicine Department, NMCL; the Director, Facilities Division; and the Director, Logistics Division, in the development of other projects related to the Hazardous Communication Standard.
- f. Ensure that the Chief, Regional Contracting Office confirm all purchase requests for federal supply class items identified in figures 8-2 and 8-3 with the request for manufacture's MSDS.
  - q. Provide MCB Hazard Communication Program training.
- h. Provide MCB Hazard Communication Program training on an "as needed" basis when major changes in hazardous materials are anticipated.

#### 8004. <u>HAZARD COMMUNICATION TRAINING</u>

- 1. Per 29 CFR, Part 1910.1200, activity heads shall ensure all military and civilian workers under their cognizance receive training in the MCB Hazard Communication Program annually. Each worker who may be "exposed" to hazardous chemicals when working, must be provided information and be trained prior to initial assignment to work with a hazardous chemical and whenever the hazard changes.
- 2. Supervisors are responsible for ensuring that annual hazard communication training is provided to their workers. Supervisors must ensure all new employees receive hazard communication training within 30 days of initial assignment. Specific information which must be transmitted to workers includes:
- a. Requirements of the hazard communication standard (that it exists and that employers are required to have hazard communication programs and the components of the program in their workplaces).
- b. Information about operations in their work area where hazardous chemicals are present.
- c. Location of the following written hazard communication materials:
  - (1) Written hazard evaluation procedures.
  - (2) Lists of hazardous chemicals.
  - (3) MSDS's.
- (4) Written hazard communication program. Figure 8-6 is a sample program to follow.

- 3. Training must also include:
- a. Methods and observations to detect the presence of a hazardous chemical in the work area (for example, information on the visual appearance or smell of chemicals).
- b. Specific information about physical and health hazards of the chemicals in the work area (either by specific chemical or by categories of hazards).
  - ${f c}$ . Measures workers may use to protect themselves from hazards,
- d. Specific protective procedures implemented by the employer (for example, work practices and the use of personal protective equipment).
- e. Explanations of how the hazard communication program is implemented in the workplace, how to read and interpret information on labels and MSDS's, and how to obtain and use the available hazard information.

## 8005. <u>CHEMICAL LABELING</u>

- 1. Ensure manufacturer's labels are present on hazardous items with the following information:
- a. Identity of the hazardous chemical. Must be the same name as indicated on the MSDS and Hazardous Material Inventory for cross-reference.
  - b. Appropriate hazard warning.
- c. Name and address of chemical manufacturer, importer or responsible party.
- 2. If the label is damaged or missing, it must be replaced immediately.
- a. The Safety Division can assist in getting labels for items with  ${\tt NSN's}$  from the Hazardous Materials Information System.
- b. All other replacement labels should be requested from the manufacturer.

## Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

## U.S. Department of Labor

OMB No. 1218-0072

Occupadonal Safety and Health Administration (Non-Mandatory Form)
Form Approved



IDENTITY (As Used on Label and List)

Note: Blank spaces are not permitted. If any item is nor applicable, or no information is available, the Space must be marked to indicate that.

	information is available, the Space	must be marked to	o indicate that.
Section I			
Manufacturer's Name	Emergency Telephone Number		
Address (Number, Street. City, State, and ZIP Code)	Telephone <i>Number</i> for Information		
	Onto Proposed		
	Oate Prepared		
	Signature of Preparer (optional)		
Section II — Hazardous Ingredients/Identity Information			
Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL ACGIA TL	Other Limits Recommended	% (optional)
		<u> </u>	
		<del></del>	
			<del></del>
	1		···-
		···	
Section III — Physical Chemical Cheracteristics			
Bailing Point	Specific Gravity (H <sub>2</sub> O = 1)		
Vapor Pressure (mm Hg.)	Melting Point	<del></del>	
Vapor Oensity (AIR = 1)	Evaporation Rate		<del> </del>
	(Butyl Acetate ≥ 1)		
Solubility in Wafer			
Appearance and Odor			
Section IV Fire and Explosion Hazard Data			
Flash Point (Method Used);	Flammable Limits	LEL	UEL
	1		
Extinguishing Media			
Special Fire Fighting Procedures			
Unusual Fire and Explosion Hazards			

(Reproduce locally)

OSHA 174, Sept. 1985

Section V -	Reactivity Data					
Stability	Unstable	Conditions to Avoid				
	Stable					
Incompatibility (I	Materials to <i>Avoid</i> )					
Hazardous Decor	nposition or Byproduc	cts				
Hazardous Polymerization	May Occur	Conditions to Avoid				
. oyozailo	Will Not Occur					
section VI -	Health Hazard I	Data				
Route(s) of Entry	r: Inhala	ation? Ski	n?		Ingestion?	
Health Hazards (	Acute and Chronic)					
Carcinogenicity:	NTP	? IAF	C Mono	ographs2	G HA Regulate	d?
						<del></del>
Signs and Symp	toms of Exposure					<del></del>
Medical Conditio	ns vated by Exposure		1			
Generally Aggran	valed by Exposure		1			
Emergency and	First Aid Procedures		-			<u></u>
					·	
Section VII -	- Precautions fo	on Sale Handling and the				
		s Released or Spilled		<u> </u>		
			—	<del>,</del>		
Waste Disposal	Method					
Precautions to B	Be Taken in Handling	and Storing				
Other Precaution	ns					
Section VIII	— Control Meas	sures				
	tection (Specify Type)					
Ventilation	Local Exhaust			Special		
	Mechanical (Genera	al)		Other		
Protective Glove	es		Eye Pro	lotection		
Other Protective	Clothing or Equipme	nt				
Work/Hygienic F						
- , ,						

Page 2

9 U.S.G.P.O.: 1986-491-529445775

## FEDERAL SUPPLY CLASSES IN WHICH ALL ITEMS MUST BE IDENTIFIED AND CERTIFIED

## Federal Supply Class

6810	Chemicals
6820	Dyes
6830	Gases; Compressed and Liquefied
6840	Pest Control Agents and Disinfectants
6850	Miscellaneous Chemical Specialties
7930	Cleaning and Polishing Compounds and Preparations
8010	Paints, Dopes, Varnishes, and Related Products
8030	Preservatives and Sealing Compounds
8040	Adhesives

## Grouw 91 (Packaged Products Only)

9110	Fuels, solid
9130	Liquid Propellants and Fuels, Petroleum Base
9135	Liquid Propellant Fuels and oxidizers, Chemical Base
9140	Fuel Oils
9150	Oils and Greases: Cutting, Lubricating, and Hydraulic
9160	Miscellaneous Waxes, Oils, and Fats

Figure 8-2. --Federal Supply Classes in Which All **Items** Must be Identified and Certified.

Federal		Hazardous Items Requiring
Supply Class	<u>Title</u>	<u>Identification</u>
1370	Pyrotechnics	Warning fuses, fire starter
1375	Demolition Materials	Explosive device
2640	Tire rebuilding and tire and tube repair materials	Only items containing flammable or toxic compounds
3439	Welding and brazing	Only hazardous items as cleaners, acids, flux supplies that contain or produce hazardous fumes
3610	Printing, duplicating, and bookbinding equipment	Flammable or toxic lithographic solutions
5610	Mineral construction	Hazardous items such as cutback asphalt, deck floor covering, deck and surface underlay compound, sealing compounds, and flight deck compounds
5640	Wallboard, building paper, and thermal materials	Asbestos cloth which has loose fibers or filings that may become airborne
6135	Batteries, <b>Non-</b> rechargeable	Lead-acid mercury primary and alkaline (with electrolyte)
6505	Drugs, biological, and official regents	Only hazardous items
6570	Photographic supplies	Only items containing hazardous chemicals, solvents, thinners, and cements
6780	Photographic sets, kits, and outfits	(See FSC 6750)

Figure 8-3. --Federal Supply Classes in Which Only Hazardous Items Need be Identified.

7510	Office supplies	Only hazardous items, such as solvents, thinners, flammable cleaning fluids, inks, and varnishes
8510	Perfumes, toilet preparations, and powders	Shipping containers and pressurized containers with flammable propellants only
8520	Toilet soap, shaving preparations, and dentifrices	(See FSC 8510)
8720	Fertilizers	Only items containing weed and pest control or other harmful gredients, or which because of their composition are hazardous
9920	Smoker's articles and Matches	Lighter fuel and matches only

Figure 8-3. --Federal Supply Classes in Which Only Hazardous Items Need be Identified--Continued.

#### HAZARDOUS MATERIAL INVENTORY

<sup>\*</sup> For reference purposity, the local Control Number is to be assigned sequentially by the Division's Safety Representative (Unit Sufety Representative). Shops should consider using individual shop number as the prefix for each pumble, i.e., Shop 84 would have numbers 84-001 through 84-1120.

<sup>\*\*</sup> Please specify pounds or gallons for all quantities.

<sup>\*\*\*</sup> Paint shops provide copies of paint usage logs.

#### EXAMPLE

**5100** B 51

Coover Precision, Inc. Attn: E. Jones 6923 W. Hobson Blvd. New York, NY 11378

REQUEST FOR MATERIAL SAFETY DATA SHEETS

Dear Mr. Jones:

Current regulations require that we have a Material Safety Data Sheet on file for each potentially hazardous material used in our operations.

A survey of our operations reveals that we do not have such a form on file for the products described in the enclosure. Accordingly, we must request our procurement personnel to curtail any future orders of this material until we have obtained an MSDS.

Please submit the Material Safety Data Sheets at Your earliest convenience for the products described in the enclosure. Thank you for your cooperation in this matter.

Sincerely,

I. M. SAFETY MANAGER

Encl: (1) Description of Chemicals

Figure 8-5. --Sample Letter to Manufacturer Requesting Material Safety Data Sheets.

## WRITTEN HAZCOM PROGRAM (EXAMPLE)

Basic format for developing Hazardous Communication Program --- Fill in blanks and type final written program for your work area)

Hazard Communication Standard Operating Procedures for (shop or branch) to be in Compliance with 29 CFR 1910.1200

1. <u>Purpose and Scope</u>. The purpose of this instruction is to ensure that \_\_\_\_\_ (shop or branch) is in compliance with the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

#### 2. General

- a. The Base Safety Division is the overall coordinating activity for the facility program, acting as the representative of CG MCB, Quantico, who has overall responsibility.
- b. In brief, the substance of the Hazard Communication Standard is:
  - (1) Master hazardous chemicals list.
  - (2) Use of material safety data sheets (MSDS).
  - (3) Labels and other forms of warning.
  - (4) Worker training in the HCS.
- c. Each worker in the facility will be apprised of the substance of the HCS, the hazardous properties of the chemicals they work with, and measures to take to protect themselves from these chemicals.

#### 3. List of Hazardous Chemicals

- $a.\$  The Base Safety Division will maintain a master list of all hazardous chemicals used at MCB , Quantico and update the list as necessary.
- b. The hazardous chemical master list will be updated upon receipt of hazardous chemicals at MCB and this list will be maintained at the Base Safety Division.
- c. The \_\_\_\_\_\_ (supervisor or foreman) will maintain a shop hazardous chemicals list of all hazardous chemicals used in \_\_\_\_\_\_ (shop or branch). The shop hazardous chemicals list will be updated when new hazards or chemicals are introduced into \_\_\_\_\_\_ (shop or branch) and a yearly inventory completed and sent to the Base Safety Division by 30 November of each year.

Figure 8-6. --Written Hazardous Communication Program Standard Operating Procedures.

## 4. Material Safety Data Sheets (MSDS's)

	a.	The _				(supe	ervis	or o	r for	reman)	wil	.1 1	mair	ntain	1
an	MSDS	list	on	every	substan	ce on	the	list	of :	hazardo	ous	che	emic	als	in
				(shop	or bran	ch).	The	MSDS	will	consi	st	of	a i	Eully	7
					74 or eq										
(sı	ıpervi	sor o	r f	oreman	) will	ensure	tha	ıt					(sł	nop c	r
bra	nch)	mainta	ains	an M	SDS for	every	<sup>7</sup> haz	zardoi	ıs ma	terial	use	ed	in	that	
are	a. <b>N</b>	(SDS's	wi	ll be	readily	avail	able	to	all p	ersonn	el :	in	the		
wor	kplace	e.													

- b. The \_\_\_\_\_\_\_ (supervisor or foreman) is responsible for acquiring and updating MSDS's for their work locations. The \_\_\_\_\_\_\_ (supervisor or foreman) will review each MSDS for accuracy and completeness and will consult with the Base Safety Division if additional research is necessary. All new procurements for the facility must be cleared by the Base Safety Division. Whenever possible, the least hazardous substance will be procured.
- c. MSDS's that meet the requirements of the HCS must be fully completed and received at the facility either prior to, or at thetime of receipt of the first shipment, or any potentially hazardous chemical purchases from a vendor. It may be necessary to discontinue procurements from vendors failing to provide approved MSDS's in a timely manner.

#### 5. Labels and Other Forms of Warning

- a. The \_\_\_\_\_\_\_ (supervisor or foreman) is designated to ensure that all hazardous chemicals in the \_\_\_\_\_\_\_ (shop or branch) are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible party. The \_\_\_\_\_\_\_ (supervisor or foreman) will refer to the corresponding MSDS to verify label information. Immediate use containers, small containers into which materials are drained for use on that shift, by the worker drawing the material, do not require labeling. To meet the labeling requirements of the HCS for other in-house containers, refer to the label supplied by the manufacturer. All labels for in-house containers will be approved by Base Safety Division prior to their use.
- b. The \_\_\_\_\_ (supervisor or foreman) will check, on a monthly basis, to ensure that all containers in the facility are labeled correctly and labels are up to date,

#### 6. Training

- a. All personnel who work with, or are potentially exposed to hazardous chemicals, will receive initial training on the HCS and the safe use of those hazardous chemicals. Additional training will be
  - Figure 8-6. --Written Hazardous Communication Program Standard Operating Procedures--Continued.

provided for personnel whenever a new hazard (not just a new chemical), is introduced into their work areas. Hazardous chemical training is conducted by \_\_\_\_\_\_ (supervisor or foreman). Attach a copy of course lines, training schedules, and a list of course materials for your record and distribution during your training sessions.

- b. The training will emphasize these elements:
  - (1) Physical, chemical, and health hazards in the work place.
- (2) Methods and observations used to detect the presence or release of a hazardous chemical and the means to protect against it.
- (3) Protective measures and equipment and emergency procedures.
  - (4) Labeling requirements.
- (5) Where MSDS's are located, how to understand their content, and how personnel may obtain and use appropriate hazard information.
- (6) Supervisor's and contractor's responsibilities in informing each other of their specific HC program.
  - (7) Training on this written program (chap. 8).
- ${f c}$ . The Base Safety Division will monitor and maintain records of personnel training, and advise the facility manager on training needs.

#### 7. <u>Contractor workers</u>

- a. Once a contractor is awarded a contract, they will receive written pre-construction meeting notes, by U.S. mail, which outline MCB, Quantico Hazard Communication program. The contractor is responsible for informing their personnel on the MCB Hazard Communication Program.
- b. MCB supervisors or foremen will provide information to contractor workers regarding any chemical hazard which may be encountered in the normal course of their work.

Figure 8-6. --Written Hazardous Communication Program Standard Operating Procedures--Continued.

## CHAPTER 9

## CONFINED SPACE MANAGEMENT PROGRAM

	PARAGRAPH	PAGE
PURPOSE . ,	9000	9-3
BACKGROUND	9001	9-3
MARINE CORPS BASE POLICY	9002	9-3
DEFINITIONS	9003	9-3
PROGRAM MANAGEMENT	9004	9-4
BASIC PROGRAM ELEMENTS	9005	9-4
REQUIREMENTS FOR CONFINED SPACE ENTRY	9006	9-6
RESTRICTIONS	9007	9-7
SPECIAL PRECAUTIONS FOR SPECIFIC		
OPERATIONS	9008	9-8
EMERGENCY RESCUE PROCEDURES	9009	9-8
CONTRACTOR OPERATIONS	9010	9-8
FIGURE		
9-1 MCB FORM 5100/5 (EF) CONFINED SPACE ENTRY PERMIT, MARINE CORPS BASE,		
OHANTICO		9-9

#### CHAPTER 9

#### CONFINED SPACE MANAGEMENT PROGRAM

- 9000. <u>PURPOSE</u>. To prescribe policy and guidance for the Confined Space Management Program.
- 9001. <u>BACKGROUND.</u> Confined spaces are not designed for routine occupancy but are large enough to **allow** entry. Such spaces have poor ventilation, limited entrance, and contain or **may** contain hazards. Confined spaces include, but are not limited to, storage tanks, process vessels, pits, vats, boilers, fuel cells, sewers, underground utility vaults, tunnels, and manholes.
- **9002.** MARINE CORPS BASE POLICY. Confined spaces shall be considered hazardous and entry is prohibited until evaluated by a qualified person.

#### 9003 . DEFINITIONS

- 1. <u>Class IV Space:</u> Does not have or potentially have (with respect to atmospheric conditions) a hazard capable of causing death/serious harm.
- 2. <u>Class III Space</u>: Contains contaminated atmospheres/conditions, but is not hazardous or Immediately Dangerous to Life and Health (IDHL). Such as:
  - a. Oxygen content greater than 19.5%, but less than 22%.
- b. Flammables or flammable atmospheres at less than 1% of the Lower Explosive Limit (LEL).
  - c. Toxic agents below Permissible Exposures Levels (PEL).
- 3. <u>Class II Space</u>: Contains dangerous atmospheres/conditions, but not IDHL. Such as:
  - a. Oxygen content greater than 16.5%, but less than 19.5%.
- b. Flammable atmospheres greater than 1%, but less than 10% of the LEL.
  - c. Toxic agents at or above PEL's, but below IDHL.

- 4. <u>Class I Ssace</u>: Contains IDHL atmospheres or conditions. Such as:
  - a. Oxygen content less than 16.5%, or greater than 22%.
- b. Flammable gases/vapors at or above 10% of the Lower Exposure Limit.
- c. Toxic agents at a level whose 30 minute exposure will cause permanent injury or death.
- 9004. PROGRAM MANAGEMENT. The CG MCB shall appoint, in writing, a qualified confined space program manager (CSPM) who shall implement a program consistent with Federal, DoD, DON, and Marine Corps standards. The CSPM shall be assigned to the Base Safety Division.
- 9005. <u>BASIC PROGRAM ELEMENTS</u>. The confined space entry program consists of six program elements as follows:
- 1. <u>Identification and Preliminary Evaluation</u>. The CSPM, in coordination with commanders and supervisors, shall identify and evaluate confined spaces and identify hazards.
- 2. <u>Preventing Unauthorized Entry</u>. Supervisors shall brief workers on restrictions regarding confined spaces and secure spaces under their control. Also, confined space shall be posted with the following:
  - a. "UNAUTHORIZED ENTRY PROHIBITED."
  - b. The hazards inside.
  - c. Person to contact.
- 3. <u>Comprehensive Hazard Evaluation</u>. Confined spaces will be evaluated before entry. Use the Entry Permit to document this process. Post, file and route the permit. Evaluations shall include:
- a. <u>Initial Atmospheric Testing</u>. Initial testing shall be performed from outside the space (drop tests or sample probes) by the Qualified Person or CSPM.
- b. <u>Periodic and Continuous Atmospheric Testing</u>. Many operations generate hazardous conditions and require periodic or continuous monitoring. The testing frequency and type depends on conditions and work performed. No single rule can be established for all operations and conditions. The Qualified Person or CSPM shall establish this.

NOTE: Calibration gases have a limited shelf life; reorder as necessary to have in-date gases. Carbon monoxide lasts 2 years;

hydrogen sulfide lasts 1 year; chlorine lasts 6 months. Test equipment should be standardized. When ordering test equipment, contact the CSPM for advice. Calibration checks shall be made before and after use and logged.

- 4. <u>Issuance of Confined Space Entry Permits</u>, To enter a confined space, the manager shall request a permit from a Qualified Person. The request shall include a description of the space, the operation to be performed, and a list of entrants/attendants/supervisors. Based on the comprehensive evaluation, the Qualified Person or CSPM shall grant the permit only if the entry or work can be performed safely. Permits shall be valid for the period specified (normally no longer than 8 hours). Only the CSPM can sign an entry permit for class I-II; the CSPM or Qualified Person can sign a class III. If work is interrupted (i.e., lunch) the permit is terminated; another permit must be issued. The permit shall contain the information specified in MCB Form 5100/5 (EF) (figure 9-1); the Qualified Person shall distribute the Permit as follows:
  - a. One copy posted at each entrance.
  - b. One copy to the requesting manager.
  - c. One copy to the CSPM.
- d. One copy to the Fire Inspector if a Hot Work Permit was issued.

## 5. Training and Oualifications

- **a.** The CSPM will complete course number SO-240, Confined Space Safety (formerly OSH-245E), conducted by the Naval Safety School or equivalent. Equivalent training must be approved by the Base Safety Division, HQMC. Verification of training shall be kept with the CG MCB appointment letter.
- b. Base Qualified Persons shall be trained and certified by the CSPM. Training shall include use, maintenance, and calibration/functional check of test equipment. Qualified Persons shall receive at least 8 hours of initial classroom instruction and 8 hours of OJT. A minimum of 2 hours annual refresher training shall be provided. All Qualified Persons shall be recertified by the CSPM annually.
- c. Supervisors shall ensure that entrants/attendants are aware of the hazards and safety measures. The CSPM shall assist in training. Supervisors, entrants, and attendants must receive annual training.
- d. Personnel required to enter confined spaces shall have this requirement included in their position description or personnel records. They shall receive a **preplacement** physical examination that

- is based upon the type work and hazards to be performed, an annual examination based on the potential of related hazards, and a termination examination upon termination of employment or reassignment to other duties.
- 6. <u>Program Evaluation</u>. The CG MCB shall make, or cause to be made, an annual evaluation of the Confined Space Entry Program. DoD Class A and B mishaps will be investigated by the CSPM. DoD Class C mishaps or accidents will be investigated by the supervisor in charge with CSPM assistance.

### 9006. REOUIREMENTS FOR CONFINED SPACE ENTRY. The following apply:

- 1. <u>Entrant.</u> The supervisor shall ensure personnel are medically fit and that claustrophobic personnel are excluded.
- 2. Attendants. Attendants are mandatory for Class I-III Space entry. The attendants shall be listed on the entry permit. Attendants shall be equipped with radios or other communications equipment to ensure prompt emergency response. Attendants will not attempt a rescue by entering the 'space'.
- 3. <u>Personal Protective Clothina and Equipment</u>. The required clothing and equipment shall be listed on the entry permit. The supervisor shall ensure that entrants and attendants are trained in personal protective clothing and equipment use.

#### 4. Preparation of Spaces

- a. Protection from External Hazards. Appropriate measures shall be taken to isolate the space from energy and to prevent release of hazardous material into spaces. Such measures include lockout and/or tagout of electrical/mechanical devices; blanking, blinding, removal, or misalignment of pipe sections, etc. Measures (e.g., the placement of barriers around confined spaces) shall also be taken to ensure that entrants are protected from vehicle or pedestrian traffic, dropped objects, etc. These measures will also prevent bystanders from falling into spaces, such as open manholes. At night, lighting shall be provided around confined spaces.
- b. <u>Ventilation.</u> Class I and II spaces shall be mechanically ventilated while occupied.
- c. <u>Space Cleaning</u>. It is often necessary to clean the space before work can be accomplished. Agents used during the cleaning process may be hazardous. Also, cleaning may disturb residues and sludge, releasing toxic or flammable gases.
- d. <u>Inertina. Pressing-up and Steam Blanketing</u>. When it is necessary to perform hot work on the exterior boundary of a confined space containing a potentially explosive or flammable atmosphere or materials, the space shall be ventilated sufficiently to eliminate

the hazard. When ventilation is impractical or does not insure safety, the space shall be **inerted**, pressed-up, or steam blanketed, as appropriate.

#### 9007. RESTRICTIONS

- 1. <u>Class III Spaces</u>. A retrieval system shall be used.
- 2. <u>Class II Spaces</u>. Flammables, toxic agents, or deviations of oxygen content in a space **may** be due to the materials and conditions in the space. The cause or source of the contamination shall be identified and removed to the maximum degree possible by cleaning, ventilating, or other such treatments prior to entry. An attendant shall be stationed immediately outside the entrance to the space. A retrieval system shall be used. Where operations are conducted which introduce flammables, toxic agents, or oxygen deviations within the space, such as spray finishing, welding, cutting, or solvent cleaning, the following shall be observed:
- a. General or local exhaust ventilation or combination shall be provided per Occupational Safety and Health Administration (OSHA) requirements. Air cannot be blown into class II spaces.
  - b. PPE shall be provided.
- C. Where flammable gases or vapors are, or may be, explosion proof, spark proof, or intrinsically safe equipment shall be used and potential ignition sources closely controlled.
- 3. <u>Class I Spaces</u>. Class I Space entry shall not normally be permitted and is only authorized for:
- a. Cases of rescue, emergency repair, or other extreme emergency. Entrants shall use:
  - (1) Self-contained breathing apparatus (positive pressure).
  - (2) A retrieval system.
- (3) Other Personal Protective Equipment as necessary. Emergency rescue personnel shall be standing by. Constant communication shall be maintained between the entrant and attendant.
- b. External cold work may be performed, provided the work does not generate ignition sources.
- c. External hot work  ${\tt may}$  be performed if the interior atmosphere is not flammable.

## 9008. SPECIAL PRECAUTIONS FOR SPECIFIC OPERATIONS

- 1. <u>Hot Work</u>. Hot work includes flame heating, welding, torch cutting, brazing, **carbon** arc gouging, or work which produces heat of 400 degrees Fahrenheit or more or, in flammables or flammable atmospheres, use of ignition sources such as spark or arc producing tools or equipment, static discharges, friction, impact, open flames or embers, and nonexplosion proof lights, fixtures, motors, or equipment. The provisions of appropriate OSHA regulations apply to hot work performed in confined spaces, and hot work performed on closed structures or containers such as pipes, drums, ducts, tubes, jacketed vessels, and similar items.
- 9009. <u>EMERGENCY RESCUE PROCEDURES</u>. The Qualified Person will document on the Entry Permit who to contact and how in an emergency. Normally the Head, Fire Prevention/Protection Branch, Security Battalion will provide this support. The Qualified Person or CSPM may establish an emergency rescue control point that is closer than the Fire Prevention/Protection Branch facilities if they deem it necessary, i.e., a class I space entry.
- 9010 . CONTRACTOR OPERATIONS. Contractors onboard MCB, Quantico:
- 1. The contractor shall provide a Qualified Person per 29 CFR 1910, 29 CFR 1926.
- 2. Marine Corps personnel shall not issue entry permits for contractors due to the liability, except where failure to do so would create an extreme emergency and would endanger personnel and property, and may, therefore, cause even greater potential liability. Such cases shall be authorized by the CG MCB and shall be personally conducted and supervised by the CSPM, except where the nature of the emergency is so extreme that delays created by seeking the CG's approval or the personnel services of the CSPM would create a greater danger.
- 3. When Marine Corps and contractor personnel occupy the same space, the Marine Corps Qualified Person and a contractor representative shall issue separate permits. The contractor shall be informed of the Marine Corps findings. However, the contractor shall be informed by the contracting officer that the contractor retains legal obligation for the safety of contractor personnel. Marine Corps personnel cannot make **an** entry based upon an entry permit from a contractor.

# CONFINED SPACE ENTRY PERMIT MARINE CORPS BASE, QUANTICO, VA

COMMAND:		WORK CENTE	R:	
BLDG/COMPARTMENT/SF	PACE NO:	REQUESTED BY:		
DATE:TII				
PURPOSE OF ENTRY:		+		
INSTRUMENT	MODEL	SERIAL	CAL DATE	
INITIAL TESTS/INTERMITT	ENT TESTS (EVERY 3	o <b>MIN</b> ):		
TESTER'S INITIALS:				
TIME:				
OXYGEN:				
LEL:				
H2S:				
CO:	h h h			
ENTRY REQUIREMENTS:	<del></del>			
LOCKOUT/TAGOU	T PURGE	LIFTLINE SEC	CURED SIGNS	
FULL BODY HARNI		D LIGHTING		
	) <del>''</del>	# / #	RETRIEVAL EQUI	
RESPIRATOR	PPECUTIV	G/WELDIN PERMIT	FIRE EXTINGUIS	HER
OTHER:		<u></u>		
COMMUNICATION PR C				
NOT SAFE F R PE	RSONNEL NOT SAFE	FOR HOTWORK		
NOT SAFE FOR PL	RSC INEL W/0 PROTEC	TION - NOT SAFE FOR	HOTWORK	
SAFE FOR PERSON	N L - NOT SAFE FOR I	HOTWORK		
SAFE FOR PERSON	- NNEL - SAFE FOR HOT	WORK		
HOTWORK				
ATTENDANT, PRINT/SIG	NATURE:			
ENTRANTS, PRINT/SIGNA				
SUPERVISOR, PRINT/SIG	INATURE:			
QUALIFIED PERSON, PR				
FIRE / RESCUE: X2636/X	(2637/91 1	RADIC	CALL SIGN:	
SAFETY DIVISION: X286	6 NOTII	FY SAFETY OF PROBL	EMS	
INDUSTRIAL HYGIENE:	X3532 <b>PMO</b>	TRAFFIC:	MCB	O P5100.1A

MCB FORM 5100/5 NOVEMBER 1996 (EF)

## CHAPTER 10

# CONTROL OF HAZARDOUS ENERGY SOURCES (LOCKOUT/TAGOUT PROGRAM)

		PARAGRAPH	PAGE
PURPOS	E	10000	10-3
RESPON	ISIBILITIES	10001	10-3
	FIGURES		
	MCB FORM 5100/6, LOCKOUT/TAGOUT STANDARD OPERATING PROCEDURE POLICY GUIDELINES		10-8
10-2	MCB FORM 5100/7, LOCKOUT/TAGOUT PROCEDURES CHECKLIST FOR ENERGY SOURCE DETERMINATION		10-11
LO-3	MCB FORM 5100/10, LOCKOUT/TAGOUT PROCEDURES LIST , ,		10-15
10-4	MCB FORM 5100/8, STATEMENT OF UNDERSTANDING		10-16
10-5	MCB FORM 5100/9, LOCKOUT/TAGOUT CERTIFICATE		10-17
10-6	MARINE CORPS BASE LOCKOUT/TAGOUT PROGRAM RELATIVE TO CONTRACT PERSONNEL		10-18

#### CHAPTER 10

## CONTROL OF HAZARDOUS ENERGY SOURCES (LOCKOUT/TAGOUT PROGRAM)

10000. <u>PURPOSE</u>. To promulgate instructions and provide guidelines, practices and procedures necessary to disable machinery or equipment and prevent release of potentially hazardous energy while maintenance and servicing activities are being performed aboard MCB, Quantico per 29 CFR 1910.147.

#### 10001. RESPONSIBILITIES

#### 1. Director, Safety Division

- a. Tensure ICB Form 5100/6 is used in the preparation of SOP's for units/shops (figure 10-1).
  - b. Appoint a Lockout/Tagout (LO/TO) program manager.
- c. Ensure organizations are inspected for compliance with 29 CFR 1910.147 on an annual basis.
- d. Serve as point of contact for contractors concerning questions related to 29 CFR 1910.147. Verify that information concerning this program is published in pre-construction notes from the Head, Public Works Branch, Facilities Division, to each contractor.
- e. Direct the development of a training program for appropriate shop supervisors. Program training is the responsibility of the LO/TO program manager.
- f. Ensure required training topics to supervisors emphasizing the following elements:
  - (1) Purpose and function of the energy control program.
  - (2) Limitation of tags in the tagout system.
  - (3) Worker retraining.
  - (4) Certification of workers.
- (5) Base and tenant activity supervisor's and contractor's responsibilities for informing each other of their specific LO/TO program.

#### 2. Commanding Officers and Directors

- a. Ensure supervisors under your cognizance report to  ${\tt LO/TO}$  training by the Base Safety Division within 30 days of appointment to a supervisory position.
- b. Ensure a LO/TO SOP is written for the organization as well as specific LO/TO procedures for each shop or other work area where machinery/equipment is maintained by authorized personnel in that shop.
- $c\,.$  Provide funding for required locks, tags, and applicable standards for supervisor's use.

#### 3. <u>Supervisors</u>

- a. Develop a LO/TO SOP for their respective shops.
- b. Use MCB Form 5100/6 (figure 10-1) as an example SOP and incorporate it into your work-site SOP as your written LO/TO program. By 30 November of each year, ensure that a current SOP is forwarded to the Director, Safety Division.
- c. Use MCB Form 5100/7 (figure 10-2) as a procedure checklist to determine energy source for individual machinery/equipment.
- ${\tt d.}$  Ensure LO/TO SOP is available to all authorized and affected personnel during all work shifts.
- e. Ensure that each worker reads and understands the SOP for their shop.
- f. Supervisors are required to maintain completed MCB Form 5100/10 (EF) which lists all LO/TO procedures (figure 10-3). These forms are subject to inspection by the Base Safety Division during Annual Safety Inspections or any other inspections.
- ${\tt g.}$  Supervisors need not maintain the required LO/TO procedure when <u>all</u> of the following elements exist:
- (1) Machine/equipment has no potential for stored or residual energy or re-accumulation of energy.
- (2) Machine/equipment has a single energy source which can be readily identified and isolated.
- (3) Isolation and locking out will completely de-energize and deactivate the machine/equipment.
- (4) Machine/equipment is isolated from energy source and locked out during maintenance.

- (5) Single lockout device will achieve locked-out condition.
- (6) Lockout device is under exclusive control of the authorized worker performing the maintenance.
  - (7) Maintenance does not create hazards for other workers.
- (8) Supervisor, in utilizing this exception, has had no accidents involving the unexpected activation of the machine or equipment during maintenance.
- h. If an energy isolating device is capable of being locked out, the supervisor's energy control program shall utilize lockout.
- i. Ensure that whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machines/equipment are installed, energy isolating devices shall be designed to accept a lockout device.
- j. LO/TO devices shall be singularly identified; shall be the only device(s) used for controlling energy; shall not be used for other purposes; and shall meet the following requirements:
  - (1) <u>Durable</u>. Shall be capable of withstanding environment.
- (2) <u>Standardized</u>. Shall be standardized within the facility in at least one of the following: color, shape, size, or format.
  - (3) Substantial. Prevent inadvertent removal.
  - (4) Identifiable. Indicate authorized worker and hazard.
- k. Ensure all workers who routinely work around potentially hazardous energy receive appropriate training. Supervisors are responsible for presenting LO/TO training to their personnel within 1 month of employment or duty assignment. Specific information which must be transmitted includes the following:

#### (1) Purpose and function of the Energy Control Program

- (a) As determined by the supervisor, authorized personnel shall receive training in the methods and means necessary for energy isolation and control.
- (b) Affected workers shall be instructed in the purpose and use of the energy control procedure.
- (c) All other personnel shall be instructed about the procedure and prohibition relating to LO/TO.

#### (2) Limitation of Taas in the Tagout System

(a) Do not provide physical restraint.

- (b) Will not be removed without authorization of authorized worker, bypassed, ignored, or otherwise defeated.
  - (c) Must be legible and understandable.
- (d) Must be able to withstand the environment of the shop.
  - (e) Must not evoke a false sense of security.
  - (f) Must be securely attached.
- (3) <u>Worker Retraining</u>. Retraining shall be accomplished when:
- (a) There is a change in job assignments, machines/equipment, processes or procedures.
- (b) There are deviations from or inadequacies in worker knowledge or use of energy control procedures.
- (c) The worker requires additional proficiency and the introduction to new or revised control methods and procedures.

### (4) <u>Certification of Workers</u>

- (a) Supervisors must certify worker training annually.
- (b) Certification shall contain workers' name and dates of training.
- 1. MCB Form 5100/8 (figure 10-4) will be signed by workers once they are trained and maintained on file in work locations. This is subject to inspection by the Base Safety Division or other inspectors.
- m. Supervisors are required to keep and maintain a safety LO/TO turnover file. The file will thoroughly list all safety training provided for that shop/unit by their supervisor. Training literature provided by the Base Safety Division will also be maintained by the supervisors.
- n. Supervisors shall appoint a worker(s) to conduct an annual inspection on every LO/TO procedure for all equipment and machinery. The inspection shall be conducted by an authorized worker other than the one(s) utilizing the energy control procedure being inspected.
- $\bf 0$ . Supervisors shall certify that annual inspections have been performed. Use MCB Form 5100/9 (figure  $10\mathchar`-5)$  as an example. The certification shall be maintained on file by the supervisor subject to inspection by the Base Safety Division and other inspectors and shall include the following:
  - (1) Identity of machine or equipment.

- (2) Date of inspection.
- (3) Workers included in inspection.
- (4) Person performing the inspection.
- 4. All Marine Corps Base, Ouantico Personnel. All military and civilian personnel are responsible for knowing, understanding, observing, and adhering to established LO/TO SOP regardless of whose shop installed the lock and/or tag.
- 5. Head, Civilian Human Resources Office Quantico. Provide a monthly list of newly hired civilian personnel to the Director, Safety Division.
- 6. <u>Head, Public Works Branch, Facilities Division and Chief,</u>
  Regional Contracting Office
- a. Ensure that figure 10-6 is included in all contractor's preconstruction notes. When Public Works Branch inspectors inspect contractor operations, ensure that requirements stated in figure 10-6 are enforced.
- b. Ensure contractors have a written SOP as referenced in paragraph 10001.3a for all machinery/equipment they operate and/or maintain. Contractors are responsible to inform supervisors that LO/TO procedures will be utilized.

Note: A written program must include specific methods that are used to achieve compliance with the requirements of the LO/TO Standard (29 CFR 1910.147). Figure 10-1 is a sample written program for shop policy use. Supervisors are to complete the blank lines and then type a final written program for shop policy use. This written program should be maintained with your policy guidelines for your shop or branch.

## LOCKOUT/TAGOUT STANDARD OPERATING PROCEDURE POLICY/GUIDELINES

LO/TO Standing Operating Procedures for

(shop or branch) for compliance with 29 CFR 1910.147,
LO/TO Procedure for (Name of Shop)
1. <u>Puroose.</u> This procedure establishes the minimum requirements for the LO/TO of energy isolating devices. It shall be used to ensure that machinery or equipment is isolated from all potentially hazardous energy, and locked out or tagged out before workers perform any servicing or maintenance activities where the unexpected energizing, start-up or release of stored energy could cause injury.
2. <u>Basic Rules for Usina Lockout/Taaout Procedures.</u> All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, value, or other energy isolating device where it is locked or gged out.
3. Sequence of Lockout/Tagout System Procedures
a. LO/TO shall be performed only by the authorized workers who are performing the ervicing or maintenance.  Name(s)/Job Title(s) of Authorized Worker(s)
(1)
(2)
(3)
b. Notify all affected workers that a lockboartagout system is going to be utilized and the reason therefore.
Name(s) Nob Title(s) of Affected Workers
(1)
(2)
(3)

c. Authorized worker(s) shall identify the type and magnitude of the energy that the machine or equipment utilities, understand the hazards of the energy, and know the methods to control the energy.

Type(	(s) and Magnitude(s) of Energy, Hazards, and Method(s) to Control)
(1)	
(2)	
(3)	
	achine of equipment is operating, shut it down by the normal stopping procedure (dress stop gle switch, close valve etc.).
Type	(s) and Location(s) of Enerav Isolating Device
(1)	
(2)	
(3)	
ources(s)	ate the energy isolating device(s) stathan the machine on equipment is isolated from the energy
<u>Type(</u>	(s) and Location(s) of Energy Isolatics Device(s)
(2)	
(3)	5
nergy source(s) ydraulic systems	the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its.). Stored energy (such as that in springs, elevated machine members, rotating flywheels, s, and air, gas, steam, or water pressure etc.) must be dissipated or restrained by methods oning, blocking, cribbing, bleeding down, etc.
Type(	(s) of Stored Methods to Dissipate or Restrain
(1)	
(2)	
(3)	

MCB FORM 5100/6 NOVEMBER 1996 (EF) (BACK) (Page 2)

g.	LO/TO	the	energy	isolating	devices	with	assigned	individual	lock(s)	or	tag(s)
----	-------	-----	--------	-----------	---------	------	----------	------------	---------	----	--------

Method(s) Selected: i.e., Locks, Taqs, Additional Safetv Measures
(1)
(2)
h, After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not
operate.
Type(s) of Eauipment Checked to Ensure Disconnections
(1)
(2)
CAUTION: Return operating control(s) to "neutral" or "off" position after the test.
i. The equipment is now locked out or tagged out
4. Restoring Machines or Equipment to Normal Production Optrations
a. After the servicing and/or maintenance is completed and aquipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.
b. After all tools have been rein wed from the machine or equipment, guards have been reinstalled and workers are in the clear, remove all O/To device has well as any blocks or cribbing that may have been used.
Operate the energy is leting devices to restor energy to the machine or equipment.
5. <u>Procedure Involving Mon. Than One Person</u> . In the preceding steps, if more than one individual is required to
LO/TO equipment, each shall lace his/her own personal lockout device or tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple LO/TO device (hasp)
may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to ensure it. Each worker will
then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her
lockout protection, that person will remove his/her lock from the box or cabinet.
Names(s)/Job_Title(s) of Workers Authorized for Group Lockout/Tagout
(1)
(2)
(3)
6. Responsibility. Supervisors shall provide a list of e equipment and machinery which require LO/TO procedures. Use the back of the form for the list and any updated changes. This list is subject to inspection by

the Director, Safety Division and other inspectors.

MCB FORM 5100/6 NOVEMBER 1996 (EF) (Page 3)

Figure 10-1. --MCB Form 5100/6, Lockout/Tagout standard operating 10-10 Procedure Policy Guidelines--Continued.

## LOCKOUT/TAGOUT PROCEDURES CHECKLIST FOR ENERGY SOURCE DETERMINATION

DATE:	CONDUCTED BY:							
	ach piece of equipment, all questions must be answered. Both be considered when responding to the questions. If the question "YES" OR "NO" or fill in the blank.							
Location:	Work Center:							
Line:	Equipment No:							
Equipment Name:								
Model:	Serial No:							
LO/TO Procedure Number Assigned:								
1. Does the Equipment have:								
a. Electric power (including battery)?	YES NO							
(If YES, list the motor control control	power partel and breaker number)							
Does it have a lockout divise?  Battery Location: ,	YES NO							
b. Mechanical Power?	YES NO							
(Mark each type of energy source th	at applies)							
(1) Engine Driven:	YES NO							
If YES, switch or key location	If YES, switch or key location:							
Is lockout device installed?	YES NO							
(2) Spring Loaded?	YES NO							
If YES, is there a method of p	preventing spring activation YES NO							

MCB FORM 5100/7 NOVEMBER 1996 (EF)

If NO, how can spring tension be safely released or secured?

(3)	Counter Weight(s)?  YES NO	VES	NO
	If YES, does it have a method of preventing movement?  If YES, can it be locked?	YES	NO
	If NO, how can it be secured?	2	
(4)	Flywheel?		
	If YES, does it have a means of preventing movement?  If YES, can it be locked FS NO	YES	NO
c. Hydra	ulic Power?  VES NO  If YES NO		
	Can control/stutoff callve be locked in "OFF" position?	YES	c I <sup>NO</sup>
	If NO, location of closest manual shutoff valve:		
	Does the manual shut off valve have a lockout device?	YES	NO
	If NO, what will be required to bleed off pressure?		
	Is there a bleed or drain valve to reduce pressure to zero?	YES	NO
	If NO, what will be required to bleed off pressure?		
	Can control/shutoff valve be locked in "OFF" position?		
	If NO, location of closet manual shutoff valve:		
	Does the manual shut off valve have a lockout device?	E I YES	NO
	If NO, what is needed to secure the valve?		

MCB FORM 5100/7 NOVEMBER 1996 (EF) (BACK) (Page 2)

Figure 10-2:--MCB Form 5100/7, Lockout/Tagout Procedures Checklistfor Energy Source Determination--Continued.

		Is there a bleed or drain valve t	o reduce pressure to zero?	YES	NO
		If NO, what will be required to	bleed off pressure?		
d.	Pneum	atic Energy?	c I YES NO	)	
		If YES,location of the main co	ntrol/shutoff value:		
		Can control/shutoff valve be loc	ked in off position?	YES	NO
		If NO, location of closest manu	al shutoff valve:		
		Does manual shutoff valve have	e lockout device?	YES	NO
		If NO, what is needed to lock th	ne value?		
		Is there a bleed or drain valve t	o reduce pressure o zero	S	NO
e.	Chemic	al System?	YE. M		
		If YES/location of the main cor			
		Can control/shutoff valve be lo		YES	NO
		If NO, location of clasest manu	are a lockout device?	VEC	NO
		It No what is need to lock the	▶	Y E S	110
		Is there a bleed of arain valve t		. YES	NO
		If NO, while will be required to	-	c   1-2	
		What personal protective clothir	ng or equipment is needed for	this equipment?	
f.	Therma	Energy?	YES NO	)	
		If YES, location of main control	shutoff valve:		
		Can control/shutoff valve be loc	ked in "OFF" or closed positio	n? YES	NO
		If NO, location of closest manu	al shutoff value:		

MCB FORM 5100/7 NOVEMBER 1996 (EF) (Page 3)

Figure 10-2.--MCB Form 5100/7, Lockout/Tagout Procedures Checklist fpr Energy Source Determination--Continued.

		MCB SAFETY PROG	RAM		
g. Gravitat	ional Energy?	YES	NO		
J	If YES, location of the ma	in control/shutoff device	):		
I	s there a device to restra	in or control the gravitat	ional energy?	YES	NO NO
_	If NO, what will be require	ed to control or restrain	the gravitational e	nergy?	
	Can the device used to re	strain or control the grav	vitational energy bo	e locked in a	position that wil
prevent the gra	vitational energy from be	ing released?	С	I YES	c I <sup>NO</sup>
h. Other S	Sources of Enersy	_			
A	are there any other actual	or potential energy sour	rces?	YES	r - I NO
ŀ	f YES, location of main co	ontrol or shutoff:		YES	NO
C	Can the control/shutoff va	lve be locked in "OFF		3	
c	losed position?			YES	NO
	s there a way to drain or	y J /		YES	NO
I	f NO, how can energy be	controlled in new aliza			
l.	s personal protective clos	hing or quipment need	ed to protect work	ers from the o	energy source?
pecial precauti	ans not noted in the pre-	ceding (e.g., fire hazards	, chemical reaction	ns. required o	ool down time
erious, etc.:/					
					1
ecommendation	s or Comments:				
Reviewed by: _					

MC6 FORM 510017 NOVEMBER 1996 (EF) (BACK) (Page 4)

Approved by:

Figure 10--2.--MCB FOrm 5100/7, Lockout/Tagout Procedures Checklist for Energy Source Determination--Continued.

## LOCKOUT/TAGOUT PROCEDURES LIST

Procedure No.	Equipment, Machinery, or Process
<del></del>	
· · · · · · · · · · · · · · · · · · ·	
<del>-</del>	
·	

MCB FORM 5100/10 NOVEMBER 1996 (EF)

# STATEMENT OF UNDERSTANDING

gy Sources, MCBO <b>P5100.1</b> on		_
/orker's signature:	(Date)	
		<b>3</b>
-		
		<b>)</b>
	· · · · · · · · · · · · · · · · · · ·	
~)~		

MCB FORM 5100/8 NOVEMBER 1996 (EF)

Figure 10-4. --MCB Form 5100/8, Statement of Understanding.

# LOCKOUT/TAGOUT CERTIFICATE

Bldg. #
Date of Inspection:
Machine/Equipment:
Location :
Name(s) of Authorized Workers:
I certify that above LO/TO procedure was inspected.
Comments:

Authorized Inspector

# MARINE CORPS BASE LOCKOUT/TAGOUT PROGRAM RELATIVE TO CONTRACT PERSONNEL

Per 29 CRF 1910.147, contractor personnel must be informed of MCB, Quantico Lockout/Tagout (LO/TO) Program. The LO/TO program for MCB is outlined in chapter 10 of this Manual. Work locations aboard MCB have written individual SOP for LO/TO, and it is the contractor's responsibility to contact the Base work location supervisor for information specific to that particular work location.

Additionally, contractors must inform MCB, Quantico ROICC and Safety Division of their LO/TO program. This is achieved by contacting supervisory personnel in the area of your contract operation. If you have any questions concerning this program, contact the Base Safety Office at telephone 784-2866.

Figure 10-6. --Marine Corps Base Lockout/Tagout Program Relative to Contract Personnel.

# CHAPTER 11

# LAWN MOWING/TRIMMING OPERATOR SAFETY

	PARAGRAPH	PAGE
BACKGROUND	11000	11-3
PURPOSE	11001	11-3
ACTION,	11002	11-3
RULES FOR PUSH MOWERS , ,	11003	11-4
RULES FOR RIDING MOWERS	11004	11-4
RESPONSIBILITIES	11005	11-5

### CHAPTER 11

### LAWN MOWING/TRIMMING OPERATOR SAFETY

- 11000. <u>BACKGROUND.</u> Every year mishaps with lawn mowers cause serious injuries. These mishaps are avoidable when SOP's are written and followed.
- 11001. PURPOSE. To establish policy and set guidelines for lawn mowing/trimming, edging and leaf blower use, operator training, personal protective equipment (PPE) needs and safety requirements. Title 29 CFR Part 1910, American National Standards Institute (ANSI), the National Safety Council (NSC), and MCO 11240.106 specify requirements adopted by the Marine Corps.
- 11002. ACTION. All personnel assigned to operate equipment will complete a course in safe operating practices, sponsored by the Facilities Maintenance Officer or Battalion Safety Officers. Documentation of training will be maintained by the supervisor of the section conducting training. Instruction will include operational skills and knowledge of the following safety rules:
- 1. Operators must be familiar with equipment controls and safety devices. All guards will be installed on lawn equipment. Equipment will not be used if guards are missing.
- 2. Ensure the area is clear of all debris.
- 3. Wear safety goggles, protective clothing, and hearing protection.
- 4. Headphones will not be worn.
- 5. As a minimum, all riding mower operators will wear protective eyewear, protective footwear, and hearing protection. Hard hats and reflective vests are encouraged.
- 6. Informing personnel that disciplinary action will be taken against operators and supervisors for failure to use PPE.
- 7. Check for equipment defects. Start the machine on firm, clear, level ground with feet and hands away from blades or other moving parts.
- 8. Arrange grass cutting so that the discharge side is never aimed toward other persons. No power mower will be operated within 10 feet of the rear of another operator. Keep children and pets away.
- 9. Never leave unattended engines running. Mowers equipped with dead man controls will not be tampered with.

- 10. Stop the engine and disconnect the spark plug wire before cleaning, or working on the underside of the mower. A hot engine can start when the blade is turned.
- 11. Never add fuel while the engine is running. After stopping the engine allow at least 5 minutes to cool before refueling. Do not smoke while refueling and always refuel equipment outdoors where gasoline vapors can escape. Use only containers approved by the Underwriters Laboratory (UL) for gasoline storage.
- 12. Report equipment failure to the supervisor. Repairs should not be attempted by the operator.

# 11003. RULES FOR PUSH MOWERS

- 1. Safety shoes (or toe guards), hearing, and eye protection must be worn.
- 2. Never push a mower up or down a slope. The safest technique is to mow across the slope. Hills or banks will not be mowed or trimmed when soggy or slippery.
- 3. Stop the engine before crossing gravel driveways, walks, or dirt roads.
- 4. Do not lift or tip the mower while it is running.
- 5. Failure to use all required PPE during these operations will result in the immediate securing of the operation until appropriate PPE is used.

### 11004. RULES FOR RIDING MOWERS

- 1. Personnel operating riding mowers must possess a valid OF-346 to operate this type of equipment per MCO 11240.106 and TM 11275-1514.
- 2. Mowers will not be operated on hills or banks which have an unsafe slope angle as determined by the supervisor.
- 3. Operate riding mowers up and down slopes instead of sideways. Riding mowers will not be operated on soggy or slippery hills and banks.
- 4. Disengage the mower blade before crossing gravel driveways, walks, and dirt roads. For riding mowers that may not have the disengage capability, the mower's engine must be stopped before driving across gravel driveways, walks, or dirt roads.
- 5. Do not operate mowers without guards.

- 6. Keep hands, feet, and clothing away from drive chains and other moving parts.
- 7. Stop the engine when not in use.
- $\ensuremath{\$}.$  Disengage all blades and drive clutches before starting the engine.
- 9. Operate mowers in a single file.
- 10. Tractors not equipped with roll over protection systems (ROPS) are not required to have safety belts installed. Operators of tractors equipped with ROPS are required to use safety belts.

### 11005. RESPONSIBILITIES

- 1. It is the responsibility of all mowing/trimming equipment operators and supervisors to comply with all safety rules.
- 2. Operators will be trained in the operation of all equipment they operate and be provided a copy of the appropriate SOP's on power lawn mowing, trimming, edging, and equipment blowing operations. They are expected to read and understand the SOP's before operating any equipment. Written documentation of training for lawn mowing equipment operators will be maintained.
- 3. Specifically, supervisors of lawn mowing/trimming operations will ensure lawn mowing equipment is marked and maintained per applicable regulations and guidelines,

# CHAPTER 12

# RAILROAD RIGHT-OF-WAY SAFETY

	<u>PARAGRAPH</u>	PAGE
POLICY	12000	12-3
BACKGROUND	12001	12-3
INFORMATION	12002	12-3
RESPONSIBILITIES	12003	12-3

#### CHAPTER 12

# RAILROAD RIGHT-OF-WAY SAFETY

- 12000. POLICY. All personnel must be made aware of the extreme danger involved in trespassing onto the CSX (Old Richmond, Fredericksburg, and Potomac) Railroad right-of-way.
- 12001. BACKGROUND. In the past, military and civilian personnel, while traversing nearby portions of the CSX Railroad right-of-way, have been struck and killed by passing trains. Despite the installation of restrictive fencing, gates, and warning signals, people continue to trespass onto the right-of-way tracts of land controlled by the CSX Railroad, ignoring the obvious and ever-present danger from high-speed trains using these tracks.
- 12002. INFORMATION. The area along the CSX Railroad tracks which passes through the eastern borders of the base is private property. Any person, military or civilian, who trespasses onto this right-of-way is subject to prosecution by the appropriate military or civilian law enforcement authorities. The normal passage at regularly established on-grade, underpass, or overhead right-of-way crossings of the CSX Railroad is not considered to be trespassing. However, loitering at these crossings is prohibited. Crossing at grade crossings while bells are sounding, signal lights are flashing, and/or barricade gates are down is a violation of the law and an invitation to disaster. Jogging or otherwise conducting PT along these tracks is prohibited.

### 12003. RESPONSIBILITIES

- 1. Supervisors will publicize to all personnel, military and civilian, the extreme danger and legal ramifications incident to trespassing onto the CSX Railroad right-of-way.
- 2. Military sponsors residing aboard MCB, Quantico have the responsibility to educate their dependents regarding these dangers.

# CHAPTER 13

# LASER SAFETY

	<u>PARAGRAPH</u>	PAGE
PURPOSE	13000	13-3
SCOPE	13001	13-3
BACKGROUND	13002	13-3
RESPONSIBILITIES	13003	13-3
REPORTS	13004	13-5
FIGURES		
13-1 LASER ANNUAL INVENTORY REPORT FORMAT		13-7
13-2 LASER TRANSFER/DISPOSAL REQUEST FORMAT		13-9

#### CHAPTER 13

### LASER SAFETY

- 13000. <u>PURPOSE</u>. To prescribe policy and guidance in the identification and control of laser radiation hazards. American National Standards Institute (ANSI) Standard **Z136.1-1993**, SECNAVINST 5100.14, and SPAWARINST 5100.12 establish and provide guidelines for Marine Corps laser safety programs.
- 13001. SCOPE. Actions required by this Chapter apply to all military, civilian, and contract workers working aboard MCB, Quantico, that procure, fabricate, possess, use, store, or dispose of laser products which are (a) designated for industrial applications, (b) designated for medical/dental applications, (c) designated for actual combat, (d) designated for combat training, or (e) classified in the interest of national security. Laser products used in research, development, test, or evaluation and which are components intended for use in the above categories are included. All other laser products must comply with 21 CFR, Part 1040. Additionally, laser hazards associated with fiber optics must comply with ANSI Standard 2136.2 and medical lasers must comply with ANSI Standard 2136.3.
- 13002. <u>BACKGROUND</u>. The increasing prevalence of lasers in the medical, industrial, and military environments has heightened the probability of exposure to injury from laser radiation. The Space and Naval Warfare Systems Command (SPAWAR 003) is the lead agency within DON and the Marine Corps for laser safety and serves as the single point of contact and authority. Laser safety is a special concern of the **Navy** and Marine Corps and is considered a separate program from radiation safety.

# 13003. <u>RESPONSIBILITIES</u>

- 1. <u>Director, Safety Division</u>. The Director, Safety Division will have oversight cognizance of the laser safety program and will ensure the laser safety program is compatible to, and in concurrence with, applicable regulations and the overall Base safety program. The Director, Safety Division will have direct access to the CG MCB.
- 2. <u>Designation of a Laser Safety Officer (LSO)</u>. The Director, Safety Division will designate a member of the Safety Division to be the MCB, Quantico LSO and to act **as** the central point of contact in laser safety matters for MCB, Quantico. The LSO will have direct access to the Director, Safety Division and possess technical expertise, practical experience, and authority to approve or disapprove the local use of lasers. The LSO will successfully complete a Laser System Safety Officer's (LSSO) course and fulfill

the requirements outlined in enclosure (7) of SPAWARINST 5100.12 and will be certified to qualify others as category II Safety Officers. Equivalent training may be approved by SPAWAR. Responsibilities of the LSO include:

- a. Maintaining a list of all lasers and their locations.
- b. Maintaining  ${\bf a}$  current listing of all personnel who are trained and certified to engage in laser operations and their specific functional limitations.
- ${f c}$ . Investigating laser radiation accidents in conjunction with the Director, Safety Division and initiation of appropriate corrective actions.
  - d. Establishing and promulgating laser safety regulations.
- e. Submitting inventories, mishap reports, and other required information to SPAWAR (003) Marine Corps, and medical authorities, with copies to the Director: Safety Division.
- f. Coordinating with LSSO's to ensure proper operational input/prospective, accident investigations, corrective actions, regulations, and reports related to laser safety, operations, and training.
- 3. <u>Laser Svstem Safetv Officers.</u> Activity heads, including tenant activities utilizing lasers, will appoint an individual LSSO for the organization. The LSSO will possess sufficient technical experience to establish SOP's to be submitted for approval by the MCB LSO. The LSSO may be an officer, SNCO, NCO, or civilian who will be designated by name with direct access to the CO. The LSSO must successfully complete an LSSO course or equivalent training as approved by SPAWAR. The LSSO will have an understanding of lasers, laser hazards, and the necessary safety procedures required for safe operation of laser systems. The LSSO will be appointed by the activity head, in writing, with a copy to the MCB LSO and the Director, Safety Division (B 51).

# 4. <u>Laser Systems Safety Officer (Operations Division)</u>

- a. An individual in the Training Branch, Operations Division will be assigned in writing as the Operations Division LSSO. A copy of the appointment letter will be forwarded to the MCB LSO and the Director, Safety Division  $(B\ 51)$ .
- b. The Operations Division LSSO is responsible for the conduct of all laser range operations per MCBO P1500.1. The Operations Division LSSO will maintain a log of all laser range firings for a minimum of 35 years.

- 5. <u>Activities.</u> All activities utilizing lasers or laser systems will:
- a. Ensure all requirements for operation, maintenance, and training for laser hazard control are met as outlined in enclosure (8) of SPAWARINST 5100.12.
- b. Establish a laser safety review system, coordinate the Laser Safety Inspection Program, publish laser SOP's, and present to the MCB LSO for approval.
- c. Provide the MCB LSO a list of all lasers and their locations, and a list of all personnel who are trained and certified to engage in laser operations (and their specific functional limitations).
- d. Establish and maintain laser record keeping procedures and records. Maintain training records and ensure required personnel are included in a medical surveillance program.
- e. Submit annual inventories of all Class IIIa, IIIb, IV, and military exempt lasers to the MCB LSO, the Director, Safety Division (B 51), and the Chief, Fire Protection/Prevention Branch, Security Battalion (B 279).
- f. Submit documentation concerning each military exempt laser product to the Laser Safety Review Board SPAWAR through the MCB LSO, with copy to the Director, Safety Division per SPAWARINST 5100.12. Military exempt lasers which have not been reviewed and approved safe for use will not be operated within this Base.
- g. Ensure lasers and laser systems will be repaired by trained authorized personnel only. Class I and II lasers purchased from a manufacturer shall not be repaired by Command personnel but will be returned to the manufacturer or manufacturer's authorized representative for repair. No attempt will be made by unauthorized personnel to open the protective housing for Class I and II lasers.
- h. Report excess lasers to the MCB LSO with copy to the Director, Safety Division (B 51). Transfer of excess lasers will be made only after modification and approval of SPAWAR (003).
- 6. <u>Health Care Advisor, Naval Medical Clinic, Occupational</u>
  <u>Health/Preventive Medicine Department</u>. Establish and maintain a medical surveillance program per OPNAVINST 5100.23.

# 13004. REPORTS

1. Mishaps and incidents will be investigated and reported per MCO P5102.1. The MCB LSO and the Director, Safety Division will be notified by telephone, within 24 hours of all laser related mishaps and incidents.

- 2. Annual inventories will be completed by activities and submitted to the MCB LSO, the Director, Safety Division and the Chief, Fire Protection/Prevention Branch, Security Battalion by 15 August for al Class IIIa, IIIb, IV, and military exempt lasers. Figure 13-1 is a sample format. The MCB LSO will submit an annual Command inventory to SPAWAR (003) by 30 August with a copy to the Director, Safety Division and the Chief, Fire Protection/Prevention Branch, Security Battalion.
- 3. Laser transfer/disposal requests will be made to **SPAWAR** by the MCB LSSO, with a copy to the Director, Safety Division and the Chief Fire Protection/Prevention Branch, Security Battalion. Figure 13-2 is a sample format.

5100

(Date)

(Originator Code)

Commanding Officer, \_\_\_\_\_ From: MCB Laser Systems Safety Officer (LSO), Marine Corps Base, To: Marine Corps Combat Development Command (B 51) Subj: CLASS IIIA, IIB, AND IV EXEMPT LASER INVENTORY REPORT FOR FY-\_\_\_\_ Ref: (a) SPAWARINST 5100.12 1. Per the reference, the following annual report is submitted for FY-\_\_\_: Laser Type \_\_\_\_\_ b. Manufacturer \_\_\_\_\_ c. Contract Number \_\_\_\_ Number of Lasers \_\_\_\_\_ d. National Stock Number \_\_\_\_\_ е. Serial Numbers \_\_\_\_\_ f. q. Exempt Qualification (check applicable boxes) Combat Training Classified \_\_\_\_\_ 2. Status Number of LASERS: In use In storage \_\_\_\_ Awaiting Disposition \_\_\_\_ b. Transferred within DoD to Date Approval date

Figure 13-1. -- Laser Annual Inventory Report Format.

<b>C</b> .	Disposed	outside	of	DoD	to	Date	Approval
							SIGNATURE
copy to Director	: c, Safety	Divisio	n (E	3 51	)		

Chief, Fire Protection/Prevention Branch (B 279), Public Safety Division

Figure 13-1. --Laser Annual Inventory Report Format--Continued.

5100

(Originator code) (Date) From: Commanding Officer, Commander, Space and Naval Warfare Systems Command SPAWAR To: (09K) Subj: REQUEST FOR TRANSFER/DISPOSAL OF EXEMPT LASER 1. It is requested that approval be granted to transfer/dispose (circle one) of the following exempt laser(s) : \*Laser Type \_\_\_\_\_ Part Number \_\_\_\_ Serial No.(s) National Stock Number (If assigned) Exemption qualification Combat \_\_\_\_ Training Classified \_\_\_\_\_ To be transferred to \_\_\_\_\_ To be donated or sold \_\_\_\_\_ For Disposal: Describe method of demilitarization and/or modification which is

Describe method of demilitarization and/or modification which is being accomplished to bring the laser in compliance with 21 CFR, Part 1040~(1977) prior to disposal outside of DoD.

\* Description should include laser medium and/or emitted wave lengths, maximum output of laser radiation, the pulse duration (when appropriate), and laser class.

SIGNATURE

copy to:
Director, Safety Division (B 51)

Chief, Fire Protection/Prevention Branch (B 279),

Public Safety Division

Figure 13-2.--Laser Transfer/Disposal Request Format.

# CHAPTER 14

# INDUSTRIAL HYGIENE/OCCUPATIONAL HEALTH

	PARAGRAPH	PAGE
PURPOSE	14000	14-3
POLICY	14001	14-3
BACKGROUND	14002	14-3
ACTION	14003	14-3
PROGRAM ELEMENTS	14004	14-6
INDUSTRIAL HYGIENE SERVICE REQUEST	14005	14-10

### CHAPTER 14

### INDUSTRIAL HYGIENE/OCCUPATIONAL HEALTH

- 14000. <u>PURPOSE</u>. To provide guidance for the Base Occupational Health (OH) Program.
- 14001. <u>POLICY\*</u> The Naval Medical Clinic (NMCL) shall provide OH services to MCB, Quantico and all tenant activities as required by OPNAVINST 5100.23 series.
- 14002. <u>BACKGROUND.</u> OH is involved primarily in the prevention of unhealthful conditions that may result from long and short term/acute exposure to conditions in the work environment. The Occupational Health Program contains two elements, Industrial Hygiene (IH) and Occupational Medicine (OM).
- 1. IH comprises that portion of the OH Program involved with the anticipation, recognition, evaluation, and control of worker exposure to chemical, physical (i.e., noise, temperature extremes, etc.), and biological agents.
- 2. OM comprises the medical examinations that ensure a worker's fitness to perform assigned duties or that identify the signs of damage resulting from workplace exposure or injuries.

### 14003. ACTION

# 1. Commandins Officers/Division Directors/Activity Heads

- a. Implement the OH program described in this Order and applicable regulations.
- b. Monitor the scheduling and completion of medical surveillance/job certification examinations of their personnel.
- c. Inform Industrial Hygiene Branch, NMCL, whenever operations change that could potentially increase worker exposure.
- d. Ensure personnel are scheduled for required training and monitor the completion of exposure related training for their staff.
- e. Forward to individual workers the results of personal air and noise sampling results mailed from NMCL.
- f. Ensure that notice to contractors is provided whenever asbestos or lead is known to be present in affected buildings.

- g. In order to limit worker exposure, comply with recommendations found in IH's survey including the following when feasible:
- (1) Replacement of hazardous materials with less hazardous materials.
  - (2) Implementation and maintenance of engineering controls.
- (3) Modification of work or administrative practices affecting workforce safety and/or health.
- (4) The supply of appropriate personal protective equipment (PPE) to workers needing it, and supporting its use with appropriate training and SOP.
- h. Ensure laboratory operations are covered by a Chemical Hygiene Plan similar to the one at appendix B.

# i. Treatment of on-the-job Injuries

- (1) Ensure that their personnel report OH illness and cases of suspected illness due to occupational exposure as soon as possible to their supervisors.
- (2) Ensure that supervisors of injured or occupationally ill civil service workers complete OPNAV Form 5100/9, Dispensary Permit and CA-1 Form, Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation (and nonappropriated fund personnel complete the LS-1) for each injury or illness for documentation of possible worker's compensation claim. This form should accompany the injured worker to the NMCL as soon as possible and always within 2 working days of the injury or illness. Civilians with injuries should report to the Occupational Medicine Branch and active duty injuries to the Military Medicine Department (Sick Call).

# 2. Commandins Officer, Naval Medical Clinic

- a. Perform regular comprehensive industrial hygiene surveys of MCB, Quantico and tenant activities, assessing exposure and evaluating program administration.
- (1) Survey sites with recognized occupational health hazards annually; survey other sites triennially.
- (2) Provide survey reports to the appropriate survey site with copies to Base Safety and the Base Inspector.
- b. Perform investigative site visits required to make any additional industrial hygiene assessments.
- $c\,.$  Upon request, review plans for new and existing facilities to ensure compliance with occupational health standards.

- d. Perform industrial hygiene related air and bulk sampling.
- e. Upon request provide exposure information to workers and their authorized representatives.
- f. Provide other industrial hygiene technical assistance as the branch determines to be necessary.
  - q. Provide OH related training as required.
  - h. Treatment of on-the-job injuries.
- (2) Perform initial assessment and treatment of active duty injuries in the Military Medicine Department (Sick Call).

# 3. <u>Director</u>, <u>Safety</u> Division

- a. Monitor workplace implementation of IH survey report recommendations through the Base Safety Inspection Program.
- b. In conjunction with the CO, NMCL, provide educational and informational materials on subjects/programs covered in this chapter.
- 4. <u>Base Inspector</u>. Monitor work place implementation of IH report recommendations.

# 5. <u>Director</u>, <u>Facilities Division</u>

- a. Coordinate with the Industrial Hygiene Branch to ensure that engineering controls are designed per applicable standards, and functions so as to limit worker exposure to levels established  $^{\rm in}$  references.
- b. Ensure contracts for asbestos and lead abatement are reviewed by the Industrial Hygiene Branch, NMCL, before execution.
- c. Ensure the Head, Public Works Branch, Facilities Division monitors contracts/contractors for compliance with Occupational Safety and Health Standards.
- d. Ensure that permits are obtained from the State of Virginia prior to initiating in-house asbestos abatement. Coordinate all asbestos issues/projects with the Base Safety Division.

# 6. <u>Individual Workers</u>

a. Use engineering controls (i.e., ventilation) when available in the workplace as recommended in activity IH survey reports.

- b. Understand and follow recommended safety and health standard operating procedures.
- $_{\text{C}}\,$  Wear personal respiratory protection, hearing protection, impermeable gloves and other PPE as recommended by activity IH survey reports.
- d. Report to the NMCL for audiometric, medical surveillance, job certification, or other examinations scheduled.
  - e. Report for OH training as scheduled.
- f. Report on-the-job injuries and  $_{cases}$  of suspected illness due to occupational exposure as soon as possible to supervisors, and report to NMCL for evaluation and treatment.

# 14004. PROGRAM ELEMENTS

- 1. Noise and Hearing Conservation (HCP). The most common OH illness is noise-induced hearing loss. The louder the noise, the longer the noise, and the more years of exposure, the greater the likelihood of hearing loss. Fortunately, hearing loss is easily preventable by regular and proper use of appropriate hearing protection. For personnel routinely exposed to high noise levels, regular audiometric examination is required in order to detect the early signs of hearing loss. Additional requirements related to this program are found in MCBO 6260.2.
- a. An assessment of personal noise exposure levels will be made as part of periodic IH surveys.
- b. Areas and equipment producing noise in excess of levels allowed in MCO 6260.1 will be labeled as "noise hazardous" with (8 x 10 1/2) NAVMED Form 6260 (NSN 0105-LF-206-2605) or (1"  $\times$  1/2") NAVMED Form 6260/A (NSN 0105-LF-212-6020).
- c. All personnel working in noise hazardous areas or with noise hazardous equipment, even for short periods, will wear approved hearing protection.
- (1) It is critical that hearing protection be adequate with respect to noise and that the protection be maintained. Hearing protection should be kept clean. Damaged equipment is useless and must be replaced.
- (2) All hearing protection wears out with normal use and must be replaced regularly. Foam plugs should be replaced after 8 to 16 hours of use and muffs after a year of use.
- (3) Hearing protection is to be provided and funded by the command or activity of personnel requiring it.

- d. Personnel routinely exposed to noise levels in excess of those allowed by MCO 6260.1 will be included in the HCP and be required to receive baseline and annual audiometric examinations. Inclusion in the program will be based upon the most recent industrial hygiene survey results and related sampling, as recommended in the survey reports. In order to ensure routine and efficient performance of examinations, activities should have their personnel report for examination during their birth month. Information regarding scheduling of audiometric examinations is available at the NMCL, Audio Clinic at 784-2510 or Physical Examinations Division.
- e. All personnel in the HCP are required to receive annual training. Training is being provided by the Industrial Hygiene Branch, NMCL.
- 2. Respiratory Protection Program (RPP). Respiratory protection is to be worn by personnel potentially exposed to chemical and metal dust, mists, fumes, vapors, and gases, in excess of allowable levels, or when required by law or regulation. The RPP is administered by the Respiratory Protection Program Manager (RPPM) per MCBO 6200.1.
- a. An assessment of potential exposure will be made as part of periodic industrial hygiene surveys. Personnel judged during the course of the survey to be potentially exposed to chemical agents in excess of levels allowed in the currently applicable regulations are required to wear approved respiratory protection. Commanders and directors of workplaces requiring respiratory protection will be notified by NMCL.
- b. Personnel in the RPP will receive an annual medical examination to certify their ability to safely wear the respiratory protection provided.
- c. Personnel in the RPP will receive annual (semiannual in the case of asbestos) fit-testing and training in the use of the respirator.
- d. Personnel assigned work requiring the use of tight-fitting respirators will, in general, receive annual fit-testing. Personnel having beards or other facial hair that could interfere with the formation of a face to facepiece seal will not be fit-tested and will not be permitted to wear tight-fitting respirators.
- e. Activities will provide and fund required respiratory protection for their workers required to wear it.
  - f. Activity respirator use must be accompanied by the following:
- (1) Respirator cleaning and disinfection after use, and periodically as needed, must be part of a regular routine.

- (2) Respirators must be stored in  ${\boldsymbol a}$  convenient, clean, and sanitary place.
- (3) Respirators are to be inspected during cleaning, and worn or deteriorated parts replaced as necessary.
- (4) Implementation of an SOP governing the selection and use of respirators is required.
- 3. Asbestos Exposure Control. Inhalation of asbestos fibers over a period of years, or a single exposure to very high levels may lead to irreversible lung disease and death. Asbestos is found in older public buildings, some floor tiles, ceiling materials and other materials, such as some automotive brake pads. Unless disturbed in such a way as to release airborne fibers, such as through sanding, grinding, cutting, and ripping out/tearing out the asbestos-containing material (ACM), exposure above allowable levels should not occur. Removal or disturbance of ACM is limited to trained personnel and shall be accomplished per applicable Federal, State, and local regulations. The Base Safety Division in cooperation with Facilities Division, will provide guidance for asbestos abatement.
- a. Supervisors, planners, and contract personnel are responsible for knowing asbestos requirements relating to their work crews and personnel.
- b. Results from sampling performed during operations aboard the base are maintained by the Industrial Hygiene Branch, NMCL.
- 4. <u>Lead Exposure Control</u>. Inhalation and ingestion of inorganic lead dust and fumes have been health hazards for at least two thousand years and have been recognized as such in industrial applications at their height in the late 1960's. Occupational and environmental controls during recent **years** have resulted in major reductions in lead exposure throughout the United States. However, lead exposure remains an area of concern for our work force.
- a. Operations aboard MCB, Quantico in which personnel may be exposed to lead include the following:
- (1) Weapons firing, weapons cleaning, and range and trap cleaning.
  - (2) Breaching training using lead-encased flex linear charge.
- (3) Performing hot work such as welding, cutting, brazing, and soldering on lead-containing or coated materials.
- (4) Application and removal of lead-containing paintings or coatings.
- b. Lead sampling aboard the base is performed by the Industrial Hygiene Branch, NMCL.

- c. Personnel routinely overexpdsed to lead will receive medical surveillance examinations per 29 CFR 1910.1025 or 1926.62, whichever is applicable.
- d. Personnel potentially overexposed to lead will receive annual education and training. This training is provided by the Industrial Hygiene Branch, NMCL.
- e. Lead is also a hazard by ingestion. Personnel working around lead dust must always wash their hands before eating, drinking, smoking, or applying cosmetics, after lead-related duties to prevent accidental ingestion of the chemical.
- 5. <u>Heat Stress Exposure Control</u>. Heat associated injury and illness results primarily from the combination of environmental temperature, humidity, exposure duration and solar contact (if outdoors), and the amount of heat generated by the body.
- a. The principal threat of heat injury is to military personnel during physical training or performing strenuous exercise. Details of the base program relating to these activities are described in MCBO 6200.1.
- b. In general, office environmental conditions, even without air conditioning, will not create health problems for normal, healthy personnel performing sedentary office jobs. For personnel working in industrial or office settings, Physiological Heat Exposure Limits will be used to determine what limitations, if any, must be put on worker exposure to heat.
- c. When situations not covered in that Order are encountered, the Industrial Hygiene Branch of the NMCL should be contacted. On the basis of conditions described or site visit, recommendations to reduce threat of heat injury will be made.
- 6. <u>Biohazards Exposure Control</u>. The opportunity for exposure to recognized biohazards is relatively limited aboard MCB, Quantico. The following are examples of common biohazards:
- a. <u>Bloodborne pathosens</u>. The Hepatitis B Virus and Human Immune-deficiency Virus found in blood and certain other body fluids pose a potential hazard to all personnel.
- (1) It is anticipated that certain personnel may come in contact with blood or other potentially infectious fluid in the course of their assigned duties. These people are required to receive immunization and training within the scope of the Base Exposure Control Plan contained in appendix C.

- (2) In unusual situations, personnel aboard MCB, Quantico could encounter blood or other contaminated material in the workplace. If this happens, the following precautions should be taken:
- (a) Blood or contaminated material should be assumed to be infectious and avoided.
- (b) If potential contact with material is necessary, personnel assigned to clean must exercise precautions as described in paragraph 5 of the Exposure Control Plan.
- (c) If contact was believed to have occurred, a medical evaluation per paragraph 4 of the Exposure Plan should be obtained.
- b. Lyme Disease. The rickettsia that carries Lyme Disease is present in several varieties of ticks living in the areas around Quantico. Personnel working in forests or overgrown areas should inspect themselves for ticks. If ticks are discovered after attachment (i.e., with head buried in skin) during work, the worker is to immediately report to NMCL for medical evaluation. If ticks are discovered after the attachment, after duty hours, the worker should seek immediate medical attention and report the incident to the Occupational Health nurse at NMCL the following work day.
- 7. Indoor Air Ouality. Requests for evaluation of Indoor Air Quality conditions are to be forwarded using the MCB Form 5100/11 (EF), Industrial Hygiene Service Request form (appendix D).

# 14005. <u>INDUSTRIAL HYGIENE SERVICE REQUEST</u>

- 1. Most industrial hygiene activities are programmed on 1 or 3-year cycles depending on conditions observed in workplaces.
- 2. If other site visits, surveys, or services are desired, activities should complete MCB Form 5100/11 (EF) (appendix D) to obtain it most efficiently.

# CHAPTER 15

# AMMUNITION AND EXPLOSIVES SAFETY

	<u>PARAGRAPH</u>	PAGE
POLICY	15000	15-3
BACKGROUND	15001	15-3
INFORMATION	15002	15-3
RESPONSIBILITIES	15003	15-3
GENERAL REQUIREMENTS	15004	15-7
FIGURE		
15-1 DD FORM 626 (EG), MOTOR VEHICLE		15-10

### CHAPTER 15

### AMMUNITION AND EXPLOSIVES SAFETY

- 15000. <u>PURPOSE</u>. To provide information and references regarding conventional ammunition, ammunition components, explosives, and handling, storage, shipment maintenance and disposal of these materials at MCB, Quantico.
- 15001. <u>BACKGROUND.</u> The explosives safety policies of the Marine Corps are directed at providing high quality ammunition in sufficient quantity to satisfy Marine Corps requirements in a safe manner. These policies emphasize safe and efficient operating procedures while maximizing the protection of valuable physical resources, and minimizing exposure of personnel to the hazards of ammunition and explosives.
- 15002. <u>INFORMATION</u>. Safety regulations are intended to control the hazards associated with handling, storage, shipping, receiving, maintenance, and disposition of ammunition and explosive materials. However, it is difficult to cover every possible emergency. Therefore, personnel carrying out these instructions shall understand the principles on which they are based, so that appropriate action is taken under circumstances not specifically covered. The ammunition and explosives safety standards that are contained in DoD directives, NAVSEA Operating Procedures, and applicable MCO's and MCBO's are to be considered the minimum. The greatest protection shall be provided when possible.

### 15003. RESPONSIBILITIES

- 1. <u>Installation Commanding General</u>. The Commanding General is solely responsible for the safety of his establishment. He shall designate, in writing, an Explosives Safety Officer within the Safety Department and require personnel of other agencies, including contractors, while on the facility under his command, to conduct their activities per established safety rules.
- 2. <u>Safety Division</u>. The Safety Division is to administer the Explosives Safety Program and other safety programs assigned.
- a. <u>Director, Safety Division</u>. The Director, Safety Division, as a staff advisor to the Commanding General for all safety matters, is responsible for implementing and managing the safety program, and will report directly to the Commanding General.
- b. <u>Explosives Safety Officer</u>. The Explosives Safety Officer (ESO) shall manage the Explosives Safety Program and provide

reasoned, informed advice to the Base and tenant activities regarding compliance with long-standing safety standards and acceptable levels of risk with regard to explosive operations.

- c. <u>Driver's Training Section</u>. The Drivers Training section shall be responsible for training, qualifying, and licensing the Explosives Drivers per the requirements of NAVSEA OP 2239, NAVSEA OP 5, Vol.1, and MCBO 11250.3.
- 3. Operations Division. The Director, Operations Division, shall provide operational support as directed in MCBO P1500.1.
- 4. <u>Public Affairs Officer (PAO)</u>, <u>Public Affairs Office</u>. When requested, in writing, by the base ESO, the PAO, Public Affairs Office shall periodically use local news media to warn the nearby communities of the hazards in trespassing on range areas and handling of live ammunition. Military families, parents, children, and other personnel, will be instructed that the ranges are off limits. They will be cautioned about the hazards and instructed in the local procedures that provide for turning in or reporting of unauthorized Government ammunition or ordnance to military authorities as indicated below.
- a. Any suspect ordnance discovered at a location other than a designated firing range will be left in place. The area adjacent to such findings by individuals on hikes, wanderings, picnics, hunting trips, etc., will be marked and the following action taken:
- (1) During working hours contact the EOD Officer at 784-5314/5420.
- (2) During nonworking hours notify the Command Duty Officer, at **784-2707** and the Military Police desk Sergeant at **784-2251/2252**.
- (3) In all instances of finding unexploded ordnance items (except small arms ammunition .50 caliber and below), the only individual authorized to handle the item is an EOD technician.
- (4) The base Military Police should be contacted for the return of small arms ammunition. Military Police shall contact the Ammunition Supply Point for disposition instructions.
- b. Discovered live ammunition that apparently has been abandoned or lost will be treated the same as unexploded ordnance or duds.
- 5. <u>Supervisory Personnel</u>. Supervisors that are responsible for the handling, storage, and/or transportation of ammunition shall be thoroughly familiar with the provisions of NAVSEA OP 5, Vol. 1, and other ordnance related publications. Supervisors have no authority to waive or alter safety regulations nor permit violation of regulations. They shall act positively to eliminate any potential

accident/hazard that exists in operations under their jurisdiction. Each supervisor shall be responsible for the following:

- a. Explain to all workers under their immediate supervision the standard safety regulations, industrial hygiene safeguards, and precautions that they shall follow and enforce. Explain the characteristics of the ammunition, explosives, or other hazardous materials involved as well as the selection, use, and care of the necessary tools, materials, protective equipment and handling equipment. Explain the hazards of fire, explosion, and other catastrophes that the safety regulations and industrial hygiene requirements are intended to eliminate or reduce.
- b. Instruct and train each worker under their immediate supervision in the work that the worker shall perform, whether the instruction is given directly or through an experienced operator, until the supervisor is satisfied that the worker is capable of performing the work safely. This instruction shall include complete information concerning magazine location, identification, and the location and use of shelters and bombproofs, first-aid kits, firefighting apparatus, guards, personal protective equipment (PPE), showers, plunges, and neutralizing solutions.
- c. Ensure all personnel are qualified and certified to perform the job assigned to them and that their certification is current. Report promptly to their immediate supervisor all workers, who in their opinion, are not qualified for their assigned work. This includes any worker who is suspected or known to be colorblind and is engaged in operations that involve the storage of ammunition and explosives.
- d. Investigate or assist in the investigation of all accidents involving operations, equipment, or personnel under their supervision and report or assist in the preparation of the report on the investigation's results for its submission to higher authority.
- e. Permit the use of only those tools and handling equipment that are authorized for the operations and used in the manner specified by standard operating procedures. Select handling equipment that complies with NAVSEA OP 4098 and NAVSEA OP 2173. Require that tools and handling equipment are properly stored in designated locations when not in use. When a tool is lost or misplaced in an operating area or magazine, stop all operations until the tool is found.
- f. Enforce compliance with safety regulations governing the use of PPE. Ensure that all PPE is inspected, maintained, or replaced as necessary.
- $g.\$  Report, in writing, to the commanding officer any requests, suggestions, or comments concerning safety standards.

- h. Alert the next level of supervision of the need for EOD personnel to remove defective or suspect ammunition from the work area.
- i. Ensure all personnel tasked to transport explosives, ammunitions, etc., are certified vehicle operators and properly licensed.
- 6. <u>Operating Personnel</u>. Operating personnel are responsible for reading, understanding and strictly observing all safety standards, requirements, and precautions applicable to their work or duty. In addition, each individual shall:
- a. Immediately report to the supervisor any unsafe condition, worker actions, or equipment or material that he considers unsafe.
- b. Immediately warn other personnel when they are in danger of known hazards or are placing themselves in danger by their failure to observe safety precautions.
- ${\tt c.}$  Wear or use approved protective clothing or equipment as required.
- d. Immediately report to the supervisor any injury or evidence of impaired health, to themselves or others, occurring in the course of work or duty.
- e. Be prepared, in the event of an unforeseen hazardous occurrence, to give an audible warning to the other workers and to exercise reasonable caution appropriate to the situation.
- f. Immediately report to the supervisor the presence of unauthorized personnel in the area.

# 7. Explosives Drivers

- a. All drivers transporting ammunition and explosives must be certified. The training, qualifying, examining, and licensing of explosive drivers will be per NAVSEA OP 5 Vol. I, NAVSEA OP 2239, and MCBO 11230.3. Training and licensing drivers is the responsibility of the Head, Drivers Training Branch, Safety Division.
- b. It is the duty of each driver assigned to transport ammunition and explosives, to follow all instructions in NAVSEA OP 2239. In addition, drivers are required to have NAVSEA OP 2239 in their possession while transporting ammunition or explosives.
- c. The driver shall be responsible for the safe and efficient transportation of the shipment of ammunition, explosives, or other dangerous articles, except in operations where relieved of the responsibility by the officer or noncommissioned officer in charge of the operation.

- d. The driver shall inspect the vehicle at least once each day and always just prior to loading cargo. The results of this inspection shall be reported on NAVMC Form 10627 (EF), Vehicle and Equipment Operational Record (Administrative and Tactical Motor Vehicles). The driver shall have the right to refuse any vehicle when, in the driver's opinion, the vehicle or load is in an unsafe condition.
- e. When vehicles transporting ammunition or explosives reach their destination after travel over public highways, the destination side of the DD Form 626 (EG), figure 15-1, must be completed. Only items 1, 8, 10, 11, 12, 17, 19, and 22 shall be checked at the receiving point. The provisions of this paragraph may be waived when all travel has been within the confines of this Base.
- 8. <u>Material Handling Equipment Operators</u>. Only qualified personnel, properly trained and licensed, shall operate industrial materials handling equipment. Personnel shall be qualified and certified under the provisions of NAVSEA OP 4098 and other appropriate command directives.

# 15004. GENERAL REQUIREMENTS

- 1. Standard Operatins Procedures. Activities shall conduct ordnance processes in the safest manner possible. Each process shall comply with the technical requirements, explosive safety standards, personnel qualification and certification requirements, Occupational Safety and Health standards, federal, state, and local regulations.5 The SOP are the required documents by which Marine Corps activities shall develop written procedures prior to starting any operation involving ammunition or explosives. No process involving explosives will take place without approved, documented procedures. NAVSEAINST 8023.11 (series) provides the standard for writing SOP's. All explosives/ammunitions SOP's will be coordinated through the Base Safety Division prior to publication.
- 2. <u>Inert-Loaded</u>, <u>Dummy</u>, and <u>Drill Ammunition</u>. Only inert ammunition shall be permitted for drill or training purposes, displays (public or otherwise), demonstrations, public functions, or patriotic occasions as authorized. All activities shall ensure that all inert-load or empty ammunition and their components, are inspected and certified to be "inert ordnance" and properly labeled as such.
- 3. Ranges, Training Areas, and Special Facilities. Marine Corps Base, Quantico encompasses approximately 66,000 acres of training areas. The ranges aboard Base provide the facilities to conduct realistic, beneficial training within the parameters of common sense and pertinent safety measures. To promote the maximum possible use of ranges and related training facilities, the following criteria must be strictly complied with:

- a. All live fire evolutions must be conducted per MCBO P1500.1, MCO P3570.1, all applicable FM's and TM's, and unit or command safety SOP's.
- b. All live fire must be conducted safely, observing all range control measures (i.e., limit markers, limits of advance, azimuths of fire changes, surveyed firing positions, etc.) as delineated in MCBO P1500.1 and Range Safety Cards issued by Range Control.
- c. All activities training aboard MCB, Quantico shall submit an individual unit request to the Director, Operations Division for the area, range, or special facilities desired per the instruction in MCBO P1500.1.
- d. Training activity involving air or water space, training areas, or live firing not published in the weekly Training Area and Range Schedule is strictly prohibited.
- 4. <u>Privately Owned Weapons, Ammunition, and Explosives</u>. All personnel owning weapons, ammunition and explosives, shall comply with the provisions of MCBO 8000.1. Individuals residing aboard the base shall register all firearms, bows, crossbows, BB and pellet guns with the Provost Marshal (Vehicle Registration Office) within three working days of initially bringing the weapon(s) on base.
- 5. Radio/Radar Transmissions. Many transmitting devices produce electromagnetic radiation which can cause premature ignition of an electro-explosive device contained in ordnance systems. This radiation can also cause biological injury to personnel. In order to permit maximum use of electromagnetic equipment while ensuring the safety of Marine Corps personnel, it is imperative that a fully coordinated program be maintained to eliminate unnecessary existing electromagnetic radiation and monitor its effect. All activities shall:
- **a.** Comply with emission control procedures as described in **NAVSEA** OP 3565 and the Hazards of Electromagnetic Radiation to Ordnance Assessment of MCB.
- b. Clearly mark, with warning signs, all radio and radar transmission sites or sources, to protect personnel and ordnance from overexposure.
- $c\,.$  Protect personnel as well as fuel and other flammable liquids from ground and aircraft radio and radar frequency fields as required by NAVSEA OP 3565.
- 6. <u>New Construction</u>. Construction features and locations are important safety considerations in planning ammunition and explosives facilities or facilities that are exposed to the damaging effects of potential explosions. Proper location of exposed sites reduces the risk of unacceptable damage and injuries in the event of an accident. Applicable safety and health specifications and features shall be

incorporated into proposed new construction and rehabilitation of existing structures. Design plans, blueprints, and specifications will be forwarded to Base Safety Division for review by the ESO, to ensure the siting of the construction meets the requirements of NAVSEA OP 5 Vol. 1, for proper site approval.

MOTOR VEHICLE INSPECTION (TRANSPORTING HAZARDOUS MATERIALS)  (Read Instructions before completing this form.)								
This form applies to Class 1.1, 1.2, 1.3; Inhalati Radioactive Label III Hazardous Material.	···	1. GOVERNMEN TCR NUMBER	IT BILL OF	LADING/				
SECTION 1 - DOCUMENTATION	ORIC	DESTINATION b.						
2. CARRIER/GOVERNMENT ORGANIZATION								
3. DATE OF INSPECTION								
1. TIME OF INSPECTION		<u></u>						
5. LOCATION OF INSPECTION								
3. OPERATOR(S) NAME(S)	<u> </u>		_					
7. OPERATOR(S) LICENSE NUMBER(S)	<u>   </u>	<u></u>				b		
3. MEDICAL EXAMINER'S CERTIFICATE*				10	. CVSA DECAL DISPL	AYED ON		
9. (X if satisfactory at origin) a. MILITARY HAZ/MAT CERTIFICATION	d. ERG OR EQUIVALE	NT	$\overline{}$		COMMERCIAL EQUIPMENT*	YES NO		
b. VALID LEASE*	e. DRIVER'S VEHICLE	INSPECTION REF	PORT*		TRUCK/TRACTOR			
c. ROUTE PLAN	f. COPY OF 49 CFR P	ART 397		Ь	, TRAILER			
SECTION II - MECHANICAL INSPECTION All items shall be checked on empty equipm	 nent prior to loading. Iter	ns with an asteris	_ <b>&amp;</b> shall be (	checked of	n all coming loaded	equipment.		
11. TYPE OF VEHICLE(S)		12. VEHILE NU	INDER(S)	>				
13. PART INSPECTED (1)	INATION (2)	2000 2000000000000000000000000000000000	1)	NATION (2)	COMMENTS	,		
a. SPARE ELECTRICAL FUSES	UNSAT EXHAUST	200200000000000000000000000000000000000	UNSAT SAT	UNSAT	<del></del>			
b. HORN OPERATIVE	I. BRAK SYST			<del>     </del>				
c. STEERING SYSTEM	Manage Naion			1	···			
d. WINDSHIELD/WIPERS	n. COUPLING D	EX CES	<u> </u>	† <u> </u>				
e. MIRRORS	à CARGO SPA	CE						
f. WARNING EQUIPMENT	p. LAN JING GE			<u> </u>				
g. FIRE EXTINGUISHER	TIRES, WHEE			<del></del>				
h. ELECTRICAL WIRIN	TAILGATE/DO		igwdown	<del>  </del>				
i. LIGHTS AND REFLECTORS	s. TARPAULIN*		<del>                                     </del>	<del>                                     </del>				
j. FUEL SYSTEM*  14. INSPECTION RESULTS (X one) CCEPTED	t. OTHER (Spec	REJECTED	1	ــــــــــــــــــــــــــــــــــــــ		-		
14. INSPECTION RESULTS (X on b) CCEPTED (If rejected give reason ander "Finanks". E			] ere correcte	ed prior to	loedina.)			
15. REMARKS	quipment win be approve	TO IT GENERALISE _	## CONTOU	ти ризи 12				
10. HEIMANNO								
16. INSPECTOR SIGNATURE (Origin)		17. INSPECTOR	SIGNATU	IRE /Desti	nation/			
To his 2010 Control   Jung,			. 0.0		Tution,			
COSTION III DOOT LOADING INCRECTION								
SECTION III - POST LOADING INSPECTION  This section applies to Commercial and Gove	reman +/Military vahicles	All itams will	ORIGIN	DESTINATIO	DN I			
be checked prior to release of loaded equipment			(1)	(2)	COMMEN	ITS		
loaded equipment.		·	SAT UNSAT	T SAT UNS	AT (3)			
18. LOADED IAW APPLICABLE SEGREGATION/		OF 49 CFR		<del>                                     </del>				
19. LOAD PROPERLY SECURED TO PREVENT N			<del>                                     </del>	++				
20. SEALS APPLIED TO CLOSED VEHICLE; TAR	PAULIN APPLIED ON OP	'EN EQUIPMENT	<del> </del>	+-	<del></del>			
21. PROPER PLACARDS APPLIED  22. SHIPPING PAPERS/DD FORM 836 FOR GOV	PRIMENT VEHICLE SHI	DAMENITO	-	+ + -				
23. COPY OF DD FORM 626 FOR DRIVER	PERMISSION VEHICLE SIN	PIVIENTS	<del>                                     </del>	+	~ <del> </del>			
24. SHIPPED UNDER DOT EXEMPTION 868			<del>   </del>	+ +	<del>-</del>			
25, INSPECTOR SIGNATURE (Origin)	<del></del>	26. DRIVER(S)	SIGNATUR	E (Origin)		77		
Zor mor got on ordination and the control of the co			<b>-</b>	_,- 5				
27. INSPECTOR SIGNATURE (Destination)		28. DRIVER(S)	SIGNATUR	F (Destina	ntion)			
27. HISPECTOR SIGNATIONE (Destination)		25. 51111211(0)		_ 1				

DD FORM 626, OCT 95 (EG) PREVIOUS EDITION IS OBSOLETE.

#### INSTRUCTIONS

#### SECTION I - DOCUMENTATION

General Instructions.

All items (2 through IO) will be checked at origin prior to loading. Items with an asterisk (\*) apply to commercial operators or equipment only. Only Items 2 through 8 are required to be checked at destination.

Items 1 through 6. Self explanatory.

- Item 7. Enter operator's Commercial Driver's License (CDL) number or Military License Number. CDL must have Hazardous Materials Endorsement.
- Item 8. \*Enter the expiration date listed on the Medical Examiner's Certificate.
- Item 9.a. APPLIES TO MILITARY OPERATORS ONLY. Military Hazardous Materials Certification. In accordance with applicable service regulations, ensure operator has been certified to transport hazardous materials.
- b. \*Valid Lease. Shipper will ensure a copy of the appropriate contract of lease is carried in all leased vehicles and is available for inspection. (Defense Traffic Management Regulation requirement.)
- o. Route Plan. Prior to loading any Hazard Class/Division 1 .1, 1.2, or 1.3 (Explosives) for shipment, ensure that the operator possesses a written route plan in accordance with 49 CFR Part 397. Route Plan requirements for Hazard Class 7 (Radioactive) materials are found in 49 CFR 177.825.
- d. Emergency Response Guidebook (ERG) or Equivalent. Commercial operators must be in possession of an ERG or equivalent document. Shipper will provide applicable ERG page(s) to military operators.
- e. \*Driver's Vehicle Inspection Report. Review the operator's Vehicle Inspection Report. Ensure that there are no defects listed on the report that would affect the safe operation of the vehicle.
- f. Copy of 49 CFR Part 397. Operators are required by regulation to have in their possession a copy of 49 CFR Part 397 (Hazardous Materials Driving and Parking Rules). If military operators do not possess this document, shipper may provide a copy to operator.
- Item 10. \*Commercial Vehicle Safety Alliance (CVSA) Decal. Check to see if equipment has a current CVSA decal and mark applicable box.

#### SECTION II . MECHANICAL INSPECTION

General Instructions.

All items (13.a. through 13.t.) will be checked on all incoming empty equipment prior to loading. All UNSATISFACTORY conditions must be corrected prior to loading. Items with an asterisk (\*) shall be checked on all incoming loaded equipment. Unsatisfactory conditions that would affect the safe off-loading of the equipment must be corrected prior to unloading.

#### SECTION II (Continued)

Item 13.a. Spare Electrical Fuses. Check to ensure that at least one spare fuse for each type of installed fuse is carried on the vehicle as a spare or vehicle is equipped with an overload protection device (circuit breaker). (49 CFR 393.95)

- b. Horn Operative. Ensure that horn is securely mounted and of sufficient volume to serve purpose. (49 CFR 393.81)
- c. Steering System. The steering wheel shall be secure and must not have any spokes cracked through or missing. The steering column must be securely fastened, Universal joints shall not be worn, faulty or repaired by welding. The steering gear box shall not have loose or missing mounting bolts or cracks in the gear box mounting brackets. The pitman arm on the steering gear output shaft shall not be loose. Steering wheel shall turn freely through the limit of travel in both directions. All components of a power steering system must be in operating condition. No parts shall be loose or broken. Belts shall not be frayed, cracked or slipping. The power steering system shall not be leaking. (49 CFR 396 Appendix G)
- d. Windshield/Wipers. Inspect to ensure that windshield is free from breaks, cracks or defects that would make operation of the vehicle unsafe: that the view of the driver is not obscured and that the windshield wipers are operational and wiper blades are in serviceable condition. Defroster must be operative when conditions require. (49 CFR 393.60, 393.78 and 393.79)
- 8. Mirrors. Every vehicle must be equipped with two rear vision mirrors located so as to reflect to the driver a view of the highway to the rear along both sides of the vehicle. Mirrors shall not be cracked or dirty. (49 CFR 393.80)
- f. Warning Equipment. Equipment must include three bidirectional emergency reflective triangles that conform to the requirements of FMVSS No. 125. FLAME PRODUCING DEVICES ARE PROHIBITED. (49 CFR 393.95)
- g. Fire Extinguisher. Military vehicles must be equipped with two serviceable fire extinguishers with an Underwriters Laboratories rating of 10 BC or more. (Commercial motor vehicles must be equipped with one serviceable 10 BC Fire Extinguisher). Fire extinguisher(s) must be located so that it is readily accessible for use and securely mounted on the vehicle. The fire extinguisher must be designed, constructed and maintained to permit visual determination of whether it is fully charged. (49 CFR 393.95)
- h. Electrical Wiring: Electrical wiring must be clean and properly secured. Insulation must not be frayed, cracked or otherwise in poor condition. There shall be no uninsulated wires, improper splices or connections. Wires and electrical fixtures inside the cargo area must be protected from the lading. (49 CFR 393.28, 393.32, 393.33)

#### INSTRUCTIONS

#### SECTION II (Continued)

- i. Lights/Reflectors. (Head, tail, turn signal, brake, clearance, marker and identification lights, Emergency Flashers). Inspect to see that all lighting davicss and reflectors required are operable, of proper color and properly mounted. Ensure that lights and reflectors are not obscured by dirt or grease or have broken lenses. High/Low beam switch must be operative. Emergency Flashers must be operative on both the front and rear of vehicle. (49 CFR 393)
- j. Fuel System. Inspect fuel tank and lines to ensure that they are in serviceable condition, free from leaks, or evidence of leakage and securely mounted. Ensura that fuel tank filler cap is not missing. Examine cap for defective gasket or plugged vent. Inspect filler necks to see that they are in completely serviceable condition and not leaking at joints. (49 CFR 393.83 and 396 Appendix G)
- k. Exhaust System. Exhaust system shall discharge to the atmosphere at a location to the rear of the cab or if the exhaust projects above the cab, at a location near the rear of the cab. Exhaust system shall not be leaking at a point forward of or directly below the driver compartment. No part of the exhaust system shall be located where it will burn, char or damage electrical wiring, fuel system or any other part of the vehicle. No part of the exhaust system shall be temporarily repaired with wrap or patches. (49 CFR 393.83 and 396 Appendix G)
- I. Brake System (to include hand brakes, parking brakes and Low Air Warning devices). Check to ensure that brakes are operational and properly adjusted. Check for audible air leaks around air brake components and air lines. Check for fluid leaks, cracked or damaged lines in hydraulic brake systems. Ensure that parking brake is operational and properly adjusted. Low Air Warning devices must be operative. (49 CFR 396 Appendix G)
- m. Suspension. Inspect for indications of misaligned, shifted or cracked springs, loosened shackles, missing bolts, spring hangers unsecured at frame and cracked or loose U-bolts. Inspect for any unsecured axle positioning parts, and sign or axle misalignment, broken torsion bar springs (if so equipped). (49 CFR 396 Appendix G)
- n. Coupling Devices (Inspect without uncoupling). Fifth Wheel: Inspect for unsecured mounting to frame or any missing or damaged parts. Inspect for any visible space between upper and lower fifth wheel plates. Ensure that the locking jaws are around the shank and not the head of the kingpin. Ensure that the release lever is seated properly and safety latch is engaged. Pintle Hook, Drawbar, Towbar Eye and Tongue and Safety Devices: Inspect for unsecured mounting, cracks, missing or ineffective fasteners (welded repairs to pintle hook is prohibited). Ensure safety devices (chains, hooks, cables) are in serviceable condition and properly attached. (49 CFT 396 Appendix G)
- o. Cargo Space. Inspect to ensure that cargo space is clean and free from exposed bolts, nuts, screws, nails or inwardly projecting parts that could damage the lading. Check floor to ensure it is tight and free from holes. Floor shall not be permeated with oil or other substances. (49 CFR 177.815(e)(1) and 398.94)

#### SECTION II (Continued)

- p. Landing Gear. Inspect to ensure that landing gear and assembly are in serviceable condition, correctly assembled, adequately lubricated and properly mounted.
- q. Tires, Wheels and Rims: Inspect to ensure that tires are properly inflated. Flat or leaking tires are unacceptable. Inspect tires for cuts, bruises, breaks and blisters. Tires with cuts that extend into the cord body are unacceptable. Thread depth shall not be less than: 4/32 inches for tires on a steering axle of a power unit, and 2/32 inches for all other tires. Mixing bias and radial on the steering axle is prohibited. Inspect wheels and rims for cracks, unseated locking rings, broken, loose, damaged or missing lug nuts or elongated stud holes. (49 CFR 396 Appendix G)
- r, Tailgate/Doors. Inspect to see that all hinges are tight in body. Check for broken latches and safety chains. Doors must close securely. (49 CFR 177.835(h))
- s. Tarpaulin. If shipment is made on open equipment, ensure that lading is properly covered with fire and water resistant tarpaulin. (49 CFR 177.835(h))
- t. Other Unsatisfactory Condition. Note any other condition which would prohibit the vehicle from being loaded with hazardous materials.

### SECTION III - POST LOADING INSPECTION

#### General Instructions.

All items will be checked prior to the release of loaded equipment. Shipment will not be released until deficiencies are corrected. All items will be checked on incoming loaded equipment. Deficiencies will be reported in accordance with applicable service regulations.

- Item 18. Check to ensure shipment is loaded in accordance with 49 CFR Part 177.848 and the applicable Segregation or Compatibility Table of 49 CFR 177.848.
- Item 19. Check to ensure the load is secured from movement in accordance with applicable service outload drawings.
- Item 20. Check to ensure seal(s) have been applied to closed equipment; fire and water resistant tarpaulin applied on open equipment.
- Item 21. Check to ensure each transport vehicle has been properly placarded in accordance with 49 CFR Part 172 Subpart F.
- Item 22. Check to ensure operator has been provided shipping papers that comply with 49 CFR Part 172 Subpart C. For shipments transported by Government vehicle, shipping paper will be DD Form 836.
- Item 23. Ensure operator(s) sign DD Form 626, are given a copy and understand the hazards associated with the shipment.
- Item 24. Applies to Commercial Shipments Only. If shipment is made under DOT Exemption 868, ensure that shipping papers are properly annotated and copy of Exemption 868 is with shipping papers.

# CHAPTER 16

# TRAFFIC SAFETY

															<u>PARAGRAPH</u>	PAGE
PROGRAM	•	•	•	•									•	•	16000	16-3
BACKGROUND	•		•	•						•	•	•	٠		16001	16-3
REQUIREMENTS					•	•			•			•	•	•	16002	16-3
TRAINING .	•				•									•	16003	16-3
SCHEDULING.	•	•						•		•				•	16004	16-4
RESPONSIBILIT	ΓΙΕ	S													16005	16-5

### CHAPTER 16

### TRAFFIC SAFETY

16000. <u>PROGRAM</u>. DoDInst 6055.4, MCO 5100.19, and MCBO 11240.2 direct the implementation of a Base Traffic Safety Program. This program consists of programs and processes related to safe driving, pedestrians, licensing, drivers training, and other areas necessary to ensure a safer driving environment aboard MCB, Quantico.

# 16001. BACKGROUND

- 1. Motor vehicle mishaps are the leading category of accidental death and injury to Marines. These mishaps impact on the individual, the unit/command, their families, and consequently the Marine Corps, costing millions of dollars every year. Traffic mishaps are preventable. Self-discipline, training, and enforcement are instrumental in preventing motor vehicle mishaps.
- 2. The objective of this program is to improve driver attitudes, habits, skills, and behavior in order to reduce vehicle accidents and the resultant injury, death, and property damage, according to guidance set forth in DoD and Marine Corps directives.
- 3. Vehicle operator errors, violations, and attitudes are principal contributors to vehicle mishaps. The Vehicle Driver Education Program mandated by MCO 5100.19 provides a means to inform personnel of driving responsibilities.

## 16002. REOUIREMENTS

- 1. The Base Safe Driving Council and its Ad Hoc Committee are designed to resolve traffic safety issues related to reducing vehicle related mishaps. Details of the Council and Committee are in chapter 1 of this Order.
- 2. Driver's licensing and government motor vehicle training are addressed in MCO 6260.1.
- 3. Bicyclists will ride with the flow of traffic when riding on base roads. ANSI or **Snell** Memorial Foundation bicycle helmets shall be worn by all persons. (including dependents) riding bicycles on MCB, Quantico as required in **DoDInst** 6055.1(NOTAL).

## 16003. TRAINING

1. <u>Driver Improvement Training</u>. All permanently assigned military personnel under the age of 26 will complete the 8-hour Driver

Improvement Course within 30 days of the day they report for duty to this Base. The following personnel are exempt:

- a. Officer students attending The Basic School.
- b. Military personnel attending MOS producing schools.
- c. Military personnel under the age of 26 who have **a** statement of **completion** on page 11 of their SRB/OQR, or a certificate of class completion from another Marine Corps base, or entry in the unit diary attesting to the date and location of Driver Improvement Course completion.
- 2. <u>Motorcycle Safetv Training</u>. Every person who registers and operates motorcycles, motor bikes, or motor scooters/mopeds aboard MCB, Quantico will complete the Motorcycle Safety Foundation Riders Course as required in MCO 5100.8.
- 3. <u>Remedial Driver Training</u>. This class is conducted to provide additional training to those individuals with traffic violations or as directed by their commanders. The Traffic Court Officer and/or commanders review each case of a moving violation and/or traffic accident. Designated individuals will participate in a Remedial Driver Training Program when considered appropriate. Civilian employees attend on their own time.
- 4. All regularly scheduled driver training will be conducted by the Driver Licensing and Training Branch, Safety Division, This includes the Driver Improvement Course, the Motorcycle Safety Course, and the Remedial Driver Training Course. Special classes are conducted at the request of commanders. Send request to the Director, Safety Division (B 51).

# 16004. <u>SCHEDULING</u>

- 1. The Driver Improvement Course will be conducted twice monthly. Spaces in this class are requested, in advance, by letter.
- 2. The Motorcycle Safety Course is conducted as needed to support personnel needs. Individuals will schedule their own attendance by memorandum to the Driver Training Branch at Bldg. # 1001.
- 3. Remedial Driver Training is an **8-hour** course conducted on the last Saturday of each month. Spaces for this class will be assigned by the MCB Traffic Court Officer, or the individual's commanding officer, and will be coordinated with the Driver Training Branch.
- 4. Dependents and other licensed drivers who are required to attend these courses will schedule their own attendance by contacting the Driver Training Branch at ext. 2120.

# 16005. <u>RESPONSIBILITIES</u>

# 1. <u>Commanders/Directors/Activity Heads</u>

- a. Ensure that SRB's/OQR's of personnel, are screened upon joining their activities, and that personnel are identified for attendance in the Drivers Training courses of instruction per the provisions of this chapter.
- **b.** Ensure that activity training officers identify and schedule personnel, requiring driver improvement training, to the Driver Training Branch, ext. 2120.
- c. Ensure appropriate entries are entered into the individual's SRB/OQR upon successful completion of the designated course(s).
- d. Commanders and Activity heads are responsible for the proper assignment, supervision, safe operation of motor vehicle operators, and implementation of MCO 5100.19 or applicable.
- e. Ensure supervisors conduct and document Pre-Departure Safety Briefings for all Marines under 26 years of age prior to their departure to a permanent change of station, when traveling extended distances (beyond established out-of-bounds limits) on leave or when the member is departing on extended liberty (more than 48 hours). Documentation of these briefings is to be maintained by the supervisor for 30 days. The briefings should cover appropriate mishap prevention information such as mode of travel, allowing sufficient time and rest, safe driving practices, etc.
- 2. <u>Director, Safety Division</u>. Provides management oversight for the safe driving program.
- 3. <u>Staff Noncommissioned Officer in Charse, Driver Trainina Branch,</u> Safety Division. The Chief Instructor, Driver Training Branch will:
- a. Maintain liaison with motor transport officers, organizational training officers/safety officers, and the Director, Safety Division in the area of safe driver licensing and training.
- b. Provide overall supervision, scheduling, conduct, and coordination of the Driver Training Program courses of instruction.
  - ${f c}\,.$  Prepare and issue certificates of completion.
  - d. Prepare and maintain class records and training statistics.
  - e. Submit personnel attendance reports as required.
- f. Maintain appropriate records and files for historical records.

- ${\bf g.}$  Perform as  ${\bf a}$  member of the Safe Driving Council's Ad Hoc Committee.
  - h. Ensure monthly seatbelt checks are performed.
- **4.** <u>Motor Vehicle Operators.</u> Motor vehicle operators will comply with the provisions of this Order and appropriate regulations.

#### APPENDIX A

# DEFINITIONS

- 1. ACTIVITY HEAD. The person responsible for a separate command, division, or activity.
- 2. <u>ABATE.</u> To eliminate or reduce an unsafe or unhealthful condition and by coming into compliance with the applicable standards criteria or taking equivalent protective measures.
- 3. <u>CIVILIAN</u>. Includes General Schedule and Wage Grade workers (including National Guard and Reserve Technicians); Nonappropriated Fund workers; Youth/Student Assistance Program workers; Foreign Nationals directly employed by Marine Corps commands and Marine Corps exchange workers.
- 4. <u>FIRST LINE SUPERVISOR</u>. The next person up the chain above a worker; has direct control of **a** worker.
- 5. <u>MILITARY.</u> Includes all military personnel on active duty; Reserve or National Guard personnel on active duty or in drill status; Reserve Officer Training Corps cadets, when engaged in directed training activities; and Foreign National military personnel assigned to Marine Corps commands.
- 6. <u>IMMINENT DANGER</u>. Applies to conditions or practices in any workplace which pose a danger that could reasonably be expected to cause death or severe physical harm immediately or before the imminence of such danger can be eliminated through normal procedures (hazard severity category I or II and mishap probability category A).
- 7. <u>INSTALLATION</u>. A facility or grouping of facilities located in the same vicinity that support particular Marine Corps functions. Installations may include locations such as posts, camps, or stations.
- 8. <u>OUALIFIED SAFETY and HEALTH PERSONNEL</u>. Includes persons who meet the Civil Service Standards for Safety Director/Specialist GS-018, Safety Engineer GS-803, Safety Technician GS-019, Medical Officer GS-602, Health Physicist GS-1306, Industrial Hygienist GS-690, Occupational Health Nurse GS-610, or other personnel determined to be qualified for OSH functions.
- 9. MILITARY-UNIOUE EOUIPMENT, SYSTEMS, OPERATIONS, OR WORKPLACES. Equipment and systems that are unique to the national defense mission, including the operation, testing, and maintenance procedures dictated by the design configuration. Examples are: military weapons, aircraft, ships, submarines, missiles and missile sites, early warning systems and sites, military space systems, ordnance, tanks, and tactical vehicles. Operations or workplaces that are

uniquely military, such as field maneuvers, combat training, naval operations, military flight and missile operations, associated research, test, and development activities, and actions required under emergency conditions.

- 10. <u>RISK ASSESSMENT</u>. An expression of potential loss, described in terms of hazard severity, mishap probability, and exposure to hazard.
- 11. <u>HAZARD SEVERITY</u>. An assessment of the expected consequence, defined by degree of injury or occupational illness that could occur from a hazard.
- 12. <u>ESTIMATED HAZARD SEVERITY</u>. A judgment of hazard severity in which a hazard is classified by an uppercase Roman numeral according to the criteria described in this enclosure.
- 13. <u>MISHAP PROBABILITY</u>. An assessment of the likelihood that, given exposure to a hazard, a mishap will result.
- 14. <u>EXPOSURE TO HAZARD</u>. An expression of personnel exposure that takes into account the number of persons exposed and the frequency or duration of exposure as depicted in the enclosure.
- 15. <u>RISK ASSESSMENT CODE</u>. An expression of the risk associated with a hazard that combines the hazard severity, mishap probability, and personnel exposure into a single Arabic numeral.
- 16. <u>HAZARDOUS CONDITION</u>. An existing condition that violates established standards or that could, or will, contribute to a mishap, as determined by qualified safety, fire, or health officials.
- 17.  $\underline{\text{UNSAFE ACT}}$ . An action that violates established standards that could, or will, contribute to a mishap.

## APPENDIX B

## CHEMICAL HYGIENE PLAN

Ref: (a) 29 CFR 1910.91.1450

- (b) 29 CFR 1910
- (c) NEHC-TM91-5
- (d) 29 CFR 1910.1200
- 1. \_\_\_(2) \_\_\_ is appointed **as** the Chemical Hygiene Officer (CHO) for this site.
- 2. Permissible Exposure Limits (PEL) for chemicals used at this site are established in reference (b). The potential for actual worker exposure at this site will be assessed during the industrial hygiene surveys performed by the Occupational Health/Preventive Medicine Directorate of the Naval Medical Clinic (NMCL). The results of this assessment will be provided in a formal report.
- a. The current assessment of the most recent survey of this site (dated\_3\_) is that there is no potential for worker overexposure to any chemicals used in laboratory operations. The working conditions currently in effect are sufficient to prevent overexposure. No local exhaust or additional ventilation needs to be provided to prevent overexposure (if exhaust or other ventilation must be in operation to control exposure, a plan for testing and maintenance of this system must be described).
- b. If exposure conditions change, the Industrial Hygiene Branch, NMCL, will be contacted at extension 2591/3219.
- c. If exposure to chemicals in excess of one-half the PEL is anticipated for 10 days per quarter or 30 days per year, annual medical surveillance per reference (c) will be performed.
- 3. Irrespective of the level of exposure, all workers working with chemicals in laboratory conditions will be provided with information and training per reference (d).
  - a. Training will be performed annually.
- b. Material Safety Data Sheets (MSDS) for chemicals used at this site are located  $\ 4$  .
- 4. Safety and Health SOP.
- a. Personnel will use safety eyewear when working with chemicals listed as eye hazardous on MSDS (address of the location of eyewear storage and the location and operation of emergency eyewash, if available).

- b. Personnel will not eat, smoke, or apply cosmetics in the laboratory area, and will wash hands prior to eating, smoking, or applying cosmetics elsewhere.
  - ${f c}$ . (Address other issues such as fire protection).

# Key

- 1. Site name and location.
- Name of designated CHO.
   Date of most recent industrial hygiene survey.
- 4. Where MSDS for chemicals used in laboratory are retained.

### APPENDIX C

## EXPOSURE CONTROL PLAN

## Ref: (a) 29 CFR 1910.1030

- 1. Per the reference, subject plan is put into effect. This plan does not address exposure at the Naval Medical or Dental Clinic which have their own plans.
- 2. Personnel working in the following job classifications have been determined by the Blood-borne Pathogens (BBP) Program Manager to have potential for contact with BBP in the performance of duties.

  Military workers will receive pre-employment, annual training, and hepatitis B immunizations. Civilian workers will be offered the immunization.
- a. Firefighters, fire officers, and crash fire rescue personnel during medical first response.
- b. Security Battalion and the following Brig personnel: corpsman, valuables supervisor, driver, programs/parole chief, counselor, and indoc/training supervisor.
- $\mathbf{c}$ . NCIS agents as a result of physical contact with violent individuals.
- d. Dependent Schools personnel determined to be 'first responders'.
- 3. Child Development Center, Family Child Care and lifeguards will receive pre-employment and annual training only.
- 4. The following are procedures for evaluating exposure incidents:
- a. An individual suspecting exposure shall report ASAP to Preventive Medicine Division, NMCL.
- b. The exposure assessment and counseling will be performed by a Military Medicine Department provider .
- c. Blood will be drawn at the time of the initial assessment and 6 weeks, 3 months, 6 months, and 1 year thereafter, and counseling performed.

# 5. Methods of Compliance

- a. Universal precautions shall be implemented to prevent worker contact with blood or other potentially contaminated infectious materials. Where it is impossible to differentiate, all materials will be considered to be infectious.
- b. Workers shall wash hands as soon as feasible after contact with potentially contaminated infectious materials.
- $c\,.$  Eating, drinking, smoking, applying cosmetics or lip balm, and handling of contact lenses is prohibited where contact with potentially infectious materials is possible.
- d. Activities involving potentially infectious materials shall be performed in a manner to minimize splashing, spraying, and spattering.,
- e. Contaminated equipment shall be examined prior to servicing or shipping and decontaminated as necessary. The BIOHAZARD label shall be attached to contaminated equipment.
- $_{\mathrm{f.}}$  Personal Protective Equipment (PPE) will be provided as appropriate.
- ${\tt g.}$  Upon leaving work areas, PPE shall be removed to prevent exposure.
- h. PPE shall be inspected before/after use to ensure integrity. Reusable PPE shall be laundered.
- i. Contaminated surfaces shall be sanitized immediately with 10 percent chlorine solution or other suitable disinfectant.
- 6. <u>Worker Training</u>. Workers listed in paragraphs 2 and 3 shall be trained at time of assignment and annually thereafter by Preventive Medicine Division, NMCL.

## 7. Responsibilities

- a. Safety Division manages the exposure control of MCB, Quantico except for Naval Medical and dental clinics.
- b. NMCL HBV immunization, exposure follow-up, and worker training. Make BBP recommendations during Industrial Hygiene surveys.
- $\boldsymbol{c}\,.$  Base Commands and tenant activities provide PPE and ensure program compliance.

# APPENDIX D

# INDUSTRIAL HYGIENE SERVICE REQUEST

INSTRUCTIONS: If service is required, complete appropriate of the form and forward to the NMCL, mail stop B 103 (Attn:	sections
Industrial Hygiene Branch). This form will be useful in plaservice and tracking request completion.	nning the
I. WHERE	
II. SERVICE REQUEST	
BULK SAMPLING AIR SAMPLING PROCESS EVALUATION INDOOR AIR QUALITY SURVEY (complete IV below) WORKER TRAINING INFORMATION REQUEST OTHER	
III. SPECIFIC DESCRIPTION OF SERVICE DESIRED IN II:	
IV. IF INDOOR AIR QUALITY INVESTIGATION PROVIDE the following applicable:	ng is
description of problem	
date discovered if worker complaint, nature of symptoms	
number of personnel with symptoms can windows be	e opened?
V. SIGNATURE PHONE NUMBE	R
IH USE ONLY	

Date received\_\_\_\_\_\_
Date resolved\_\_\_\_\_

Resolution: